

***Communication in mentoring: A  
grounded theory approach***

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*To the three gentlemen  
my father, my father-in-law (late),  
& my husband.*

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## LIST OF ABBREVIATIONS

GT	Grounded Theory
MP	Mentoring Program
MwMr.	Met with Mentor
MwMe.	Met with Mentee
CEMC	Core Essentials of Mentoring Communication
IC	Initial Coding
FC	Focused Coding
CPMM	Communication Patterns in Mentoring Model

## **Abstract**

Communication in mentoring is an understudied topic, and this study aimed to investigate the impact of communication in mentoring on mentoring relationships. Over the last few decades research on mentoring in general has gained momentum, and many researchers have focused on aspects of mentoring such as dialogues. This study investigates holistic impact of communication in mentoring on mentoring relationship in one-to-one mentoring sessions between mentor-mentee dyads.

The topic was researched using constructivist approach; hence, data was collected using in-depth semi-structured interviews from mentors and mentees enrolled in mentoring programs across Germany. A total of twenty-five interviews, fifteen mentees and ten mentors, were conducted, transcribed, and coded. The data was analysed using tri-tier Grounded Theory approach, namely, Initial Coding, Focused Coding and Theoretical Coding accompanied and complimented by memo writing and constant comparisons techniques.

The result of extensive analysis of the data revealed four patterns in mentoring communication. These patterns were Collaborative Communication, Shallow Communication, Mentor-Directed Communication and Mentee-Directed Communication. The study found Collaborative Communication as the most successful pattern with most satisfied mentors and mentees, and Shallow Communication as ineffective due to dissatisfied mentors and mentees, where as, Directed Communications showed varying results. The findings revealed that the role mentors and mentees adopt in mentoring relationships affects their communication. Most recurrent roles for mentors were mentors and advisors, and for mentees the roles were mentees or advisees. The study found that mentors adopting the role of mentor were most successful and were found to be engaging in Collaborative Communication, and mentor-mentee dyads engaging in Shallow Communication were taking up the role of advisor/advisee. Where as, when one was mentor/mentee and the other was advisor/advisee then Directed Communications happened. Also, the selection process plays an important role in mentoring communication. The study found four selection scenarios that influence mentees Self-Satisfactory, Prescribed-Satisfactory, Self-Dissatisfactory, and Prescribed-Dissatisfactory. The study found that selection process influence is not based on self or prescriptive selection process

only, rather its impact is felt when combined with other influences on communication in mentoring.

In short, despite good intentions and investing considerable time and efforts many mentoring relationships remain ineffective. This study is significant for such cases as it provides a framework to mentor-mentee dyads and mentoring programs to diagnose why mentoring partnerships are not achieving optimum results by looking at the communication patterns employed by mentor-mentee dyads.

## Abstrakt

Kommunikation in Mentoring ist ein wenig erforschten Thema, und diese Studie zielt auf die Auswirkungen der Kommunikation in Mentoring auf Mentoring-Beziehungen zu untersuchen. In den letzten Jahrzehnten hat die Forschung zu Mentoring im Allgemeinen an Dynamik gewonnen, und viele Forscher haben sich auf Aspekte des Mentorings wie Dialoge konzentriert. Diese Studie untersucht den ganzheitlichen Einfluss von Kommunikation im Mentoring auf die Mentoring-Beziehung in Einzel-Mentoring-Sitzungen zwischen Mentor-Mentee-Dyaden.

Das Thema wurde mit konstruktivistischen Ansatz erforscht ; Daher wurden die Daten mithilfe von detaillierten semi-strukturierten Interviews von Mentoren und Mentees, die in Mentoring-Programmen in ganz Deutschland eingeschrieben waren, erhoben. Insgesamt fünfundzwanzig Interviews, fünfzehn Mentees und zehn Mentoren wurden geleitet, transkribiert und codiert. Die Daten wurden unter Verwendung der trilateralen Grounded Theory- Methode analysiert, nämlich Initial Coding, Focused Coding und Theoretical Coding, begleitet von Memo Writing und Constant Comparison- Techniken.

Das Ergebnis einer umfassenden Analyse der Daten ergab vier Muster in der Mentoring-Kommunikation. Diese Muster waren Collaborative Communication, Shallow Communication, Mentor-Directed Communication und Mentee-Directed Communication. Die Studie fand Collaborative Communication als die erfolgreichste Muster mit den meisten zufriedenen Mentoren und Mentees, und Shallow Communication als unwirksam wegen unzufriedener Mentoren und Mentees, wobei Directed Communications unterschiedliche Ergebnisse zeigte. Die Ergebnisse reflektieren die Rolle, die Mentoren und Mentees in Mentoring-Beziehungen übernehmen, beeinflusst ihre Kommunikation. Die am häufigsten wiederkehrenden Angebote für Mentoren waren Mentoren oder Berater, und für Mentees waren die Rollen Mentees oder Advisees. Die Studie ergab, dass der Mentor, der die Rolle des Mentors übernommen hat, am erfolgreichsten war und sich als kooperativ erwies Kommunikation, und in RR ÄT-Mentee Dyaden Eingriff in Shallow C ommunikation nahmen die Rolle des Beraters / advisee auf. Wo, wie, wenn man war Mentor / Mentee und der andere war Berater / advisee dann Directed passiert C itteilungen. Auch der Auswahlprozess spielt eine

wichtige Rolle in der Mentoring-Kommunikation. Die Studie fand vier Auswahlzenarien, die die Mentees selbstzufriedenstellend, präskribiert-befriedigend, selbst-unbefriedigend und verschrieben-nicht zufriedenstellend beeinflussen. Die Studie fand heraus, dass Auswahlprozess Einfluss nicht auf sich selbst beruht oder prescriptive Auswahlprozess nur, sondern ihre Auswirkungen zu spüren ist, wenn sie mit anderen Einflüssen auf Kommunikation in Mentoring kombiniert.

Kurz gesagt, trotz der guten Absichten und investieren viel Zeit und Anstrengungen wieder viele Mentoring - Beziehungen Haupt unwirksam. Diese Studie ist für solche Fälle von Bedeutung, da sie Mentor-Mentee-Dyaden und Mentoring-Programmen einen Rahmen bietet, um zu diagnostizieren, warum die Mentoring-Partnerschaften nicht optimale Ergebnisse erzielen, indem sie die Kommunikationsmuster der Mentor-Mentee-Dyaden betrachten.

## Chapter 1- Introduction

This study sets out to investigate communication in mentoring between mentors and mentees in one-to-one mentoring sessions in formal mentoring programs of universities across Germany. It seeks to identify, through in-depth semi-structured interviews with mentors and mentees, the emerging patterns in communication between mentors and mentees in mentoring sessions. In this study, using Grounded Theory method (Charmaz, 2014; Glaser, 1978) and Case Study approach Yin (2009) I aim to develop an analytical framework to examine communication patterns in mentoring between mentors and mentees, to explore the influences on mentors and mentees, and their impact on major factors that create patterns in communication in mentoring.

### 1.1 Motivation for the Study

I started my career as an English Language Teacher in a private school in Pakistan. I was fortunate that senior teachers in the school were helpful, considerate, and always available to help me. I knew that I needed their support for all aspects of classroom teaching from content to classroom management, therefore, I listened to them and employed the wisdom they imparted wholeheartedly to my practice. This informal mentoring helped me survive the first year where many novice teachers leave. I taught there for three years, I learned from my seniors and in due course I mentored many novice teachers. This was the beginning of my interest in mentoring.

After teaching for three years, I realized I needed to expand my horizon. So I went to the U.S. on Fulbright scholarship to study TESOL for two years. I came back to teach at university level and I realized that unlike school environment, where teachers work together in a close-knit environment, university teaching environment was different. Mentoring for new faculty members was neither provided nor expected. I faced a few challenges in the beginning and realized that, as we need mentoring in school set-up for the benefit of students and teachers' own growth; it holds true for university set-up as well. I wanted to pursue a PhD to investigate mentoring in university set-up. However, as I read more about mentoring I detected a gap in mentoring literature on how communication in mentoring, in university level mentoring programs, affects mentoring from mentors and mentees perspective, and I decided to work toward exploring communication in mentoring.

## 1.2 Background and Context

When I started my PhD I knew that I wanted to conduct research on mentoring in university. However, I was not decided that I wanted to focus on formal or informal mentoring. In one of our doctoral colloquiums my professor mentioned a mentoring program in our university and suggested I look into their program. I was curious so I read information on their home page and I knew I wanted to explore communication in mentoring in formal mentoring programs for female postdoctoral researchers in universities across Germany.

The mentoring program for female postdoctoral researchers is a special endeavour of German government. Although, other mentoring programs are also available in German universities, for instance mentoring for female researcher in science, mentoring for international students, mentoring for doctoral student, mentoring for MS students, etc. The mentoring program for female postdoctoral researchers is unique and much needed exercise in the right direction. The German government's stance was, "In the German science system the percentage of women drops gradually from the start of studies towards the professorship. This phenomenon is often described as the "Leaky Pipeline." Women make up currently 50% of the students, but only 45% of doctoral students. Only 25% of habilitations are completed by women. On the level of professorships, about 20% are women. This program wants to work counteractively against this development."<sup>1</sup> Therefore, universities across Germany are taking steps to support women in science.

I will present a brief introduction of different mentoring programs of universities<sup>2</sup> across Germany, collectively. I will directly quote information from their home pages for accuracy; however, due to ethical reasons I will not share their names because they might lead the reader to believe that research was conducted in these particular sites hence revealing or giving clues about participants identity.

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<sup>1</sup><http://www.igad.rwthachen.de/cms/IGAD/GenderMainstreaming/~evox/Professorinnenprogramm/lidx/1/> Female Professors Program of the Federal Government and the States as seen on 14 Feb. 18

<sup>2</sup> Information presented here was randomly selected from Home pages of multiple mentoring programs across Germany from Internet for research purposes only. It **does not** reflect that these programs or universities participated in the research.

### **1.2.1 Aims of mentoring programs.**

The mentoring programs aimed to provide “personalized support from experienced mentors to provide the necessary formal and informal knowledge, key competencies and professional contacts to effectively plan and pursue a science career, and thus help them sustainably integrate into the higher education system”<sup>3</sup>. Another program described their aim as, “The goal of the mentoring program is to encourage gifted and motivated female academics to strengthen their abilities and potentials for the professional career track and to provide them with support from the experiences of successful scholars further along in their careers”. Similarly, another program added “The core concept of mentoring is that in order to attain professional success, qualifications and dedication are not sufficient on their own; rather, first and foremost, there is a need for supportive relationships”.

### **1.2.2 Target population.**

These mentoring programs were aimed at “highly qualified female postdocs, post-doctoral candidates, junior research group leaders, and junior professors from all disciplines of these universities.” “Who seek to further their academic careers or who would like to take on leadership positions in research and teaching fields or in clinical areas.”

### **1.2.3 Focus of mentoring programs.**

These mentoring programs were organised around three foci: mentoring, training and networking. In mentoring, the candidates met experienced professors in one-to one mentoring session “in confidential exchanges the mentors provide the opportunity to pass on their experience to the mentee, to support them individually in the planning of their career steps and professional challenges”. Training: were specific workshops focusing on developing key skills, and networking “concerning career related topics give the mentees the opportunity to expand their network, learn role models and get advice from Campus' experts”<sup>4</sup> in networking events of the programs.

For my research, I further narrowed down the research focus to communication in mentoring in one-to-one mentoring sessions between mentor and

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<sup>3</sup> The names of the mentoring programs are not shared here for ethical reasons.

<sup>4</sup> The names of the mentoring programs are not shared here for ethical reasons.

mentee participating in formal mentoring programs for female postdoctoral researchers in universities across Germany.

### **1.3 Aim of the Study**

The aim of this research study was to explore communication in mentoring due to a surprising lack of research literature on communication in mentoring. Initially, the study intended to investigate impact of communication in mentoring between mentors and mentees in formal mentoring programs organised by their respective universities across Germany. However, as the research progressed importance of influences emerged and I investigated influences that affected communication in mentoring. A brief overview of the aims of the study as it progressed using GT are summarized below:

1. To investigate the skills required by mentor-mentee dyads in communication in mentoring.
2. To explore the roles mentor-mentee dyads adopt in communications in mentoring.
3. To analyse the factors affecting communication in mentoring between mentor-mentee dyads.
4. To examine the effects of influencing factors on communication in mentoring between mentor-mentee dyads.

This study would be an indispensable contribution towards gap in research literature on effective mentoring relationships with focus on communication in mentoring by theorizing an understanding of communication in mentoring and its influencing factors.

### **1.4 Research Questions**

Grounded Theory (GT) requires researchers to explore a topic without first defining parameters as researchers' bias might hinder the emergence of theory from data. Therefore, I started the study with an overarching question:

- What is communication in mentoring between mentor-mentee dyads engaging in one-to-one mentoring sessions?

As the study progressed questions arose from the data during Initial Coding and Focused Coding stages that guided theoretical sampling. At the end of Initial Coding analysis four-research questions emerged from the data, these questions were:

1. What personal and professional skills should mentors and mentees have for effective communication in mentoring?
2. What is the role of mentors in making communication in mentoring a success?
3. What is the role of mentees in making communication in mentoring a success?
4. What factors influence communication in mentoring relationship?

Later four more questions arose at the end of Focused Coding analysis:

5. What happens after the influences have acted out on communication in mentoring?
6. What transpires when mentees and mentors both take initiative?
7. What transpires when one is complacent and the other is active?
8. What transpires when both mentor and mentee are complacent?

These research questions guided theoretical sampling and made sure that this research adhered to all tenet of GT till theory emerged from the data.

## **1.5 Structure of the Thesis**

The thesis comprise six chapters, chapter 1 is introduction of the study stating motivation for the study, followed by brief background of mentoring programs across Germany, purpose of the study and overview of thesis structure. Chapter 2 establishes the need for the study by providing a bird's eye view of the existing literature on mentoring, and communication in mentoring, bringing to light the dearth of research literature on communication in mentoring. Chapter 3 details the research methodology adopted to conduct the research including research paradigm, research design, and methodological procedures. Chapter 4 presents the three-tier analysis: Initial, Focused and Theoretical Coding, and findings in light of the analysis using memoing and constant comparison techniques. Chapter 5 engages in profound discussion on findings and its contribution to existing literature. Chapter 6 concludes the thesis with summary of research, research limitations, pedagogical limitations and future directions of the research.

## **Chapter 2- Literature Review**

### **2.1 Introduction**

Communication in mentoring is a developing topic and researchers are working towards understanding the complexity of communication in mentoring and its impact on mentors, mentees, and their mentoring relationship. This research is a step forward towards understanding communication in mentoring especially focusing on the role of communication when some mentoring relationships are successful and some are dissatisfactory experiences for mentors and mentees.

In this chapter, I will bring to light an understanding of communication in mentoring and how it is shaped by different influencing factors to establish a base that will facilitate comprehension of the findings emerging from the data analysis stage. I will accomplish this goal by comparing available and complimenting information in mentoring and communication literature to build a case for relevance and complexity of communication in mentoring in this chapter and later to explain findings in discussion chapter (see Ch- 5). To give a brief background, I will start with describing mentoring and relevant features in Section-1, and later in Section-2, I will converge it with communication in mentoring and its relevant aspects. To further our understanding of communication in mentoring, I will focus on the influencing factors to comprehend the intricacies of communication in mentoring and the role communication plays in affecting mentoring relationships.

### **Section- 1**

### **2.2 Mentoring**

In order to understand role of communication in mentoring, it is essential to present a brief overview of mentoring. Therefore, in this section I will provide a synopsis of mentoring, beginning with diverse definitions of mentoring and followed by descriptions of different aspect of mentoring compiled from available research literature.

Extensive research has been conducted on mentoring and researchers have defined it in different ways. Some researchers have defined mentoring as a process

and some have called it a contract. Gardiner (1998) in a study on mentoring has referred to mentoring as a contract, which gets its strength from being reliable and open, in which mentors and mentees share their experiences while maintaining respect for each other. Whereas, Strong and Baron (2004) study has stated, mentoring in essence is a partnership between mentors and mentees, where step-by-step guidance is provided to mentees till they are comfortable with the process. And, Hill & Wheat (2017) study has added to this discussion by calling mentoring a developmental relationship, which requires sustained interaction between mentors and mentees.

Some researchers see mentoring as a complex process. Kemmis, Heikkinen, Fransson, Aspfors, and Edwards-Groves (2014) in their study have defined mentoring as, “mentoring is a specific kind of cooperative human activity in which characteristic actions and activities (doings) are comprehensible in terms of relevant ideas in characteristics discourses (sayings), and in which the people and objects involved are distributed in characteristics relationships (relatings)”(p.155). Similarly, Chaliès, Ria, Bertone, Trohel, and Durand (2004) study has presented mentoring as a process of learning for mentees together with their mentors. It transpires when mentors and mentees engage in “collective thinking, integrating and associating” their ideas and thoughts towards a shared goal of learning to teach (Chaliès et al., p. 780).

Furthermore, in an attempt to define mentoring Devos (2010) study has posited that mentoring is a process not merely to provide support to mentees or reduce teacher attrition rather it serves on multiple level. And, Kemmis et al. (2014) have elaborated in their study that mentoring process could be, a. preparation for induction in professional life, b. providing professional support or guidance for mentees and c. to assist mentees to become equal partners in professional dialogue for their development and becoming member of their professional community. In this study, I concur with the thought that mentoring is a complex phenomenon, it is a contract to be open and reliable, as well as a relationship between mentor-mentee dyads in which both sides matter, and it is a process which spans a certain time period, has certain key players, is affected by multiple factors, ends with a favourable or unfavourable result, and can have contingencies.

In the paragraphs, below I will present different aspects of mentoring, such as purpose of mentoring, focus of mentoring, stages of mentoring and types of mentoring, selected from multiple studies to establish that mentoring has ascertained its importance in training professionals, and it is a complex process.

### **2.2.1 Purpose of mentoring.**

Research has established mentoring as one of the most effective and widely used professional development techniques (Hennissen, Crasborn, Brouwer, Korthagen, & Bergen, 2010; Hudson & Hudson, 2010; Mann & Tang, 2012); therefore, mentors and mentees should have a clear purpose for mentoring to achieve success. Gibson (2005) study has stated the purpose of mentoring is to provide support and assistance to the mentees to retain and groom them to be successful in their respective field. To further this argument, Fowler and O’Gorman (2005) study has added that mentoring performs eight functions to facilitate effective mentoring; namely, personal and emotional guidance, coaching, advocacy, career development facilitation, role-modelling, strategies and systems advice, learning facilitation and friendship.

Moreover, the purpose of mentoring may differ in different fields. In education sector the purpose of mentoring should be preparing young professionals. As Strong & Baron (2004) study has emphasised 15% of emerging professionals leave during first year and 50% leave during first seven years in the United States, and the situation is similar in other parts of the world due to high pressure. The pressure becomes many folds for emerging professionals since they have to learn as well as perform at the same time in our competitive world. To offer a solution, Sandoval-Lucero et al. (2011) in their study have posited that emerging professionals mentored and prepared through professional development programs feel more prepared and confident to deal with work related issues.

Additionally, mentoring also plays an important role in academia in supporting emerging professionals by grooming them to be equal partners in their success. As it has been shown in Gong, Chen, & Lee (2011) and Kemmis et al. (2014) studies, mentoring can enhance mentees’ productivity and professional success by assisting mentees to become equal partners in professional dialogue for their development and becoming member of their professional community. This claim was further strengthened in Montgomery, Dodson, and Johnson (2014) study, where they have proposed that purpose of mentoring is to assist mentees to re-evaluate their objectives to be deeply involved in their academic career. It is a phase of “knowing what they know” about their competence as a producer of knowledge and concisely identifying strategies to navigate macro-and micro-level career environments

(Montgomery, Dodson & Johnson, 2014, p.6); hence, mentoring is essential for mentees' personal and professional growth in their selected professions.

### **2.2.2 Focus of mentoring.**

In order to provide support and assistance to mentees the focus of mentoring should be defined. Kram (1985) has proclaimed that two types of supports can be provided to the mentees psychosocial support and career support. Psychosocial support is "those aspects of a relationship that enhance an individual's sense of competence, identity, and effectiveness in a professional role" (Kram, 1985, p.32). Kram (1985) has added psychosocial support is to provide mentee acceptance and confirmation, counselling, friendship and role modelling. On the other hand, Kram and Isabella (1985) study has included sponsorship, information sharing, coaching, career strategizing, exposure and visibility, job-related feedback, protection, challenging work assignments in career enhancing functions calling it career support.

Additionally, Ortiz-Walters & Gilson (2005) in their study, while supporting Tenenbaum, Crosby & Gliner's (2001) claim, have added that mentors provide three kinds of support to mentees psychosocial support, instrumental support and networking support. It was further broadened by Rippon & Martin (2006) study, in which they have talked about emotional support and professional support; where as, additional support was added by Hennissen et al. (2010), who have suggested in their study the focus of mentoring should be on instructional and organizational competences of mentee. Therefore, due to the range of support available, it is important to clarify focus of mentoring before commencing with the actual mentoring process.

### **2.2.3 Stages of mentoring.**

Mentoring is a long process, which requires time and patience from mentor and mentees. Kram (1985) has stated that mentoring has four sequential phases: Initiation, Cultivation, Separation, and Redefinition. In Initiation phase, the mentors and mentee get to know each other and it takes 6-12 months. Then, in the Cultivation phase the relationship is strongest as the mentees are receiving the psychosocial and instrumental support and it may last from 2- 5 years. Separation stage is when the mentee starts establishing his/her independence and it is followed by Redefinition phase where their relationship develops beyond the bounds of mentoring relationship.

Thus, understanding the phases could make mentoring process easier to understand for mentors as well as mentees.

#### **2.2.4 Types of mentoring**

St-Jean and Audet (2009) study on mentoring has posited that mentoring needs to be adaptable and versatile in order to be successful. There are many different styles of mentoring depending on the need of mentees and their mentoring environment. Young, Bullough, Draper, Smith, & Erickson (2005) in their study have discussed directive, responsive, and interactive mentoring styles. These styles were extended in Yendol-Hoppey and Dana (2007) study who have described six types of mentoring approaches for school based mentoring, namely: Retired Educators, Cooperating Teachers, Yearlong Internship, Apprenticeship Model, School Based Mentors, Full-Time Cohort Mentors.

In academia, Gibb (2003) study has suggested mentees should use bricolage mentoring “using those who are to hand as and when needed” to increase their personal and professional learning (p.47). Whereas, Colwell (1998) has recommended classical and instrumental mentoring that mentee can use depending on their need and requirement. Later, Kemmis et al. (2014) in their study have classified three archetypes of mentoring: support (traditional mentoring as support); supervision (assessing new teachers to pass through probation); and, collaborative self-development (peer-group mentoring). The options for mentoring are plenty as they differ based on the need of mentees and expertise of mentors.

Moreover, Gold (1996) as cited in Richter et al. (2013) has talked about instructional support and psychological support for mentees. Psychological support is much discussed topic, where as they explained that instructional support develops that knowledge base and skill sets of mentees. They have also referred to Cochran-Smith and Paris’s (1995) two approaches to mentoring knowledge transmission and knowledge transformation. Knowledge transmission is self-explanatory where as knowledge transformation is collaborative relationship where knowledge is mutually generated. Richter et al. (2013), after discussing the different mentoring types, have brought to light two mentoring styles Constructivist-oriented mentoring based on constructivist learning theory where knowledge is constructed between mentor and mentee, and Transmission-oriented mentoring based on behaviourist theory of learning where knowledge provided by mentor is accumulated by mentees. Therefore, in light of available resources it is essential for mentors and mentees to keep abreast

with different mentoring types and make informed decisions about what they want from mentoring.

### **2.2.5 Summary**

In this section, I have summarised the research available on mentoring, delineating it as a complex process and highlighting the role mentoring plays in academia in enhancing mentees' personal learning and professional development experience (Gong et al., 2011; Sandoval-Lucero et al., 2011). Therefore, to make mentoring a successful event mentors and mentees should agree to make it a priority, set aside time for it and honour the confidentiality aspect of this relationship (Zerzan, Hess, Schur, Phillips, & Rigotti, 2009); and develop a mentoring relationship based on "collaborative inquiry, cooperative practice and reflection" (Carter & Francis, 2001, p. 260).

## **Section- 2**

As elaborated above, mentoring is a multi-layered yet necessary phenomenon for personal and professional growth of mentors and mentees. In this section, due to dearth of research literature on communication in mentoring I will compile complimenting information from a few available studies on communication in mentoring but mostly I will rely on studies on all topics concerning mentoring, to establish the complexity of communication in mentoring, as best as the scope of this study allows. It is a necessary exercise as only then it would be possible to understand why and how communication in mentoring affects mentoring relationships as discovered in findings of this study.

Communication is a multifaceted word; Cambridge online dictionary has defined communication as to "share information with others by speaking, writing, moving your body or using other signals."<sup>5</sup> That is, during mentoring when mentors communicate with mentees, they use all faculties (speaking, writing, body movement and signals) available to them to send across personal or professional guidance and advise mentees. The question here is what happens when this communication (speaking, writing, body movement and signals) goes astray? In mentoring context, what happens when communication in mentoring (speaking, writing, body movement and signals) breaks down, becomes unsuccessful event, or becomes successful event?

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<sup>5</sup> <https://dictionary.cambridge.org/dictionary/english/communicate> as seen on 12 Feb, 2018

However, in order to find answer to this question it is important to understand communication in mentoring. In this section, I will give a detailed account of communication in mentoring and relevant aspects along with highlighting the gaps investigated in this study.

### **2.3 Communication in Mentoring**

In mentoring, communication between mentor and mentee plays an important role in success or failure of the relationship. As mentioned earlier, mentoring by definition is a process and to ensure it is progressing as desired mentors and mentees need to communicate effectively. Effective communication, however, does not occur naturally; in fact, it requires intention and effort from both mentors and mentees. Dimbleby & Burton (1998) in their study have argued that communication is “something that we do, something that we make, and something that we work on when we receive it from others” (p.6). While mentors use features of effective communication, the mentees also have to respond accordingly. A combined effort from mentor-mentee dyads to try to understand and respond to the suggestions, ideas, remarks and comments of the other to answer personal concerns one might have, would make communication in mentoring effective (Chaliès et al., 2004).

Furthermore, to build the argument of effective communication Orland-Barak & Klein (2005) have suggested in their study that mentoring conversations *should* be “collaborative, dialogical and personal growth discourse” (p. 393; italics used as in original text). Therefore, effective communication in mentoring between mentors and mentees is an active process where both discuss and reflect to make the communication meaningful. This raises the question of what happens when mentors and mentees in mentoring relationships refrain from using norms of effective communication, and they do not indulge in discussions and reflective practices collaboratively, and how this communication becomes ineffective and inadequate, which was the focus of this study. However, it is empirical to understand what constitutes communication in mentoring before establishing what affects effective communication in mentoring; therefore, I will now delineate the types of communication available to mentor-mentee dyads and its features.

#### **2.3.1 Types of communication in mentoring.**

Research on mentoring talk has shown multiple options available to mentors to convey their message to mentees. It is interesting to note that the type of

communication mentors adopt and how mentees respond to it affects the communication in mentoring and the mentoring relationship. Orland-Barak & Klein's (2005) study has posited that there are two different mentoring narratives namely, instructional and developmental narrative. The instructional narrative is widely used due to professional demands on the mentors. The mentor while using instructional narrative acts as a "model" and a "trainer" whose focus is on student achievement (Orland-Barak & Klein, 2005, p.393). The communication between mentor and mentee in this relationship is prescriptive, therefore, the chances of mentees feeling left behind or ignored would be high since it would be catering to what mentor *should* do but not what mentees need. On the other hand, in developmental narrative the focus is mentees and their need to grow as professionals.

Furthermore, instead of a specific type of mentoring Chaliès, Ria, Bertone, Trohel, & Durand (2004) study has endorsed that mentors could choose to be versatile for effective mentoring communication by initiating the mentoring dialogues as "directive, prescriptive, and pragmatic" but as mentees gain experience it may become "collaborative, reflective and theoretical" (p.766). Therefore, mentors are at liberty to choose the style they prefer and they may change it according to the needs of their mentees keeping the focus of communication in mentoring on growth of mentees by using multiple conversation styles.

Moreover, to simplify the selection of conversation styles Orland-Barak & Klein (2005) study has classified mentoring conversations as therapeutic, apprenticeship and reflective. In therapeutic orientation the mentors acts as a therapists; either mentors talk to mentees or both talk to each other to understand mentees' experiences and feelings. In apprenticeship model the mentoring conversations are prescriptive in nature and repetition of predetermined behaviour (modelling). Whereas, the third model of conversation is reflective conversation, which is reciprocal in nature between mentors and mentees keeping in view their roles as expert and novice.

Additionally, mentors could adopt reflective style for effective communication in mentoring. Crasborn, Hennissen, Brouwer, Korthagen, & Bergen (2011) in their study have suggested that giving feedback, instructions, or modelling is not enough for mentees to learn, what mentees need is reflective practice in order to grow as professional and it can be achieved with the help of skilled and experienced mentors. However, to engage mentees in reflective practice mentors would need effective

communicative skills, as convincing mentees to think about their practice, to share their apprehensions, and to seek advice requires superior communication skills in a mentor. Conversely, what happens when effective communicative skills practiced by mentors do not produced desired effects, and how does it impact the communication in mentoring relationship, was also investigated in this study.

### **2.3.2 Features of communication in mentoring.**

Furthermore, in order to understand why communication in mentoring works and what make it dissatisfactory, one needs to understand the features of communication in mentoring. Crasborn et al. (2011) in their study have distinguished fifteen supervisory skills in dialogues; however, upon close inspection it becomes clear that these supervisory skills can easily function as features of effective communication.

These supervisory skills are:

“showing attentive behaviour (1), asking an open starting question (2), asking for concreteness (3), summarizing feeling (showing empathy) (4), summarizing content (5), showing genuineness (6), completing sentence/clarifying question (7), confronting (giving feedback, summarizing inconsistencies, utilizing the here and now) (8), generalizing (asking for similar situation) (9), helping in making things explicit (10), helping in finding and choosing alternatives (11), asking for something new (12), giving information (13), giving opinion/assessing (14), and giving advice/instruction (15).” (Crasborn et al., 2011, p. 501)

When applied correctly these features produce successful results, however, what happens when handled carelessly, and can the same features make communication in mentoring an unsuccessful event was also further explored in this study.

### **2.3.3 Influences on communication in mentoring.**

Communication in mentoring is fundamentally affected by intrapersonal, interpersonal and external influences, which affect the outcome of the mentoring sessions. In the paragraphs below, I will provide an over view of these influences and the role they play in affecting communication in mentoring based on information drawn from literature on mentoring so that I can relate these influences and their impact to findings of this study in the discussion chapter (see Ch-5).

### ***2.3.3.1 Intrapersonal influences on communication in mentoring.***

In communication in mentoring, mentors and mentees both are influenced by multiple intrapersonal influence that later affect, positively or negatively, mentoring relationship. Bird (2001) study has stated that a mentor should have experience, insight, enthusiasm, and a positive attitude. These personal skills that she has talked about yield intrapersonal influences on mentors that could affect their communication in mentoring. Similarly, Allen and Eby (2008) in their book have suggested that a mentor should be committed, modest and humble, and these personal skills have influence on mentoring. Elaborating further on the topic, Hobson, Ashby, Malderez, and Tomlinson (2009) study has added open mindedness of mentors to factors that influence mentoring. Hence, the personal skills mentioned here have intrapersonal influence on mentors, which consequently influence communication in mentoring relationship.

Furthermore, Schatz-Oppenheimer (2016, p. 4) study has supplemented “integrity and concern, assertiveness and leadership, flexibility, tolerance, teamwork capabilities facility in forming and maintaining interpersonal relations, and the ability to motivate trainees and enrich their professional skills” to personal qualities of mentors conducive for mentoring (Johnson, 2003; Orland-Barak & Hasin, 2010; Rippon & Martin, 2006); therefore, having immense intrapersonal influence on mentors’ communication and consequently on communication in mentoring.

Similarly, effects of intrapersonal influences on mentees that affect their communication in mentoring relationships was studied by Feiman-Nemsar & Buchmann (1987) and they have suggested mentees could be influenced by their “particular understandings and dispositions that influence their approaches to experience and their capacities to learn from it” (p. 256). Also, Ambrosetti and Dekkers (2010) in their study have expanded the intrapersonal influence on mentees performance by adding personal skills such as listening and responding to the list. These intrapersonal influences on communication in mentoring affect the performance of mentors and mentees in mentoring relationships.

### ***2.3.3.2 Interpersonal influences on communication in mentoring.***

In communication in mentoring mentors and mentees are also experience interpersonal influences, which could affect their relationship positively or negatively. Hodges (2009) study has stated these interpersonal influences between mentors and mentees could be poor communication, lack of trust, and lack of appreciation that can

influence mentoring relationship. And, Johnson and Kardos (2005) study has further added that mentors attributes, practices and lack of mentor training could influence communication in mentoring.

*Interpersonal influence of mentors on communication in mentoring.*

Mentors role yield significant interpersonal influence on communication in mentoring. In this study, I used the term ‘mentor’ in the same sense as used by Homer in *Odyssey*. Before his voyage King *Odysseus* made his friend and companion ‘Mentor’ in charge of his son *Telemachus* to guide and train him. In this scenario, overlooking the fact that Goddess *Athena* personified Mentor to guide *Telemachus*, apparently Mentor was providing personal and professional guidance and encouragement to *Telemachus*. Thus, the scaffolding a mentor provides has to bear the responsibility of mentees personal growth and professional development.

*Mentors’ role in communication in mentoring.*

In academia, role of the original ‘Mentor’ has become far more complex. Effective mentors need to devote time and effort to develop the mentoring relationship (Ortiz-Walters & Gilson, 2005; S. Wang, Noe, Wang, & Greenberger, 2009); which is based on effective communication and to make communication effective mentors adopt multiple roles, some all at once and some in sequence. Crasborn et al. (2011) study has argued that due to diversity in mentees’ needs and requirements mentors need to be versatile; as has been suggested by Neary (2000) study a mentor is a teacher, a friend, an advocate, and a facilitator. This topic was further explored by Ambrosetti and Dekkers (2010) who have also elaborated that mentor’s role is dynamic, it involves relationship and process aspects and it is contextually based. Furthermore, multiple studies have suggested different personal skills such as “integrity and concern, assertiveness and leadership, flexibility, tolerance, teamwork capabilities facility in forming and maintaining interpersonal relations, and the ability to motivate trainees and enrich their professional skills” to personal qualities of mentors conducive for mentoring (Johnson, 2003; Orland-Barak & Hasin, 2010; Rippon & Martin, 2006; Schatz-Opppenheimer, 2016, p. 4).

Furthermore, expanding on the roles Hennissen et al. (2010) in their study have presented the MERID model, which depicts four different mentor roles in mentoring dialogues: initiator, imperator, advisor and encourager. The *initiator* mentor introduces a topic and then encourages mentee to think further, the *imperator* mentor introduces a topic and uses directive interventions, the *advisor* mentor reacts

to the mentee input and gives advice, and the *encourager* mentor reacts to the input of the mentee and induces him or her to reflect on his or her performance. In the same study mentioned earlier Ambrosetti and Dekkers (2010) have established a table of what roles are available to or adopted by mentors from literature review. This table included; supporter, role model, facilitator, assessor, collaborator, friend, trainer, protector, colleague, evaluator, communicator. However, the most eloquent definition of the roles of mentors and mentees was given by Kochan and Trimble (2000) in their study “the mentee was not someone waiting to be discovered but rather someone discovering herself, and the mentor, rather than serving as a font of perfect knowledge, became a co-learner in the process of discovery” (p. 21).

Furthermore, a mentor should adopt the role of a critical friend. As Hudson and Hudson (2010) study has elaborated a successful mentor- mentee relationship needs to be strong enough for the mentors to be able to provide feedback, both positive and constructive. In support, Kutsyuruba (2012) study has posited successful mentors achieve this balance by adopting the role of a critical friend who asks challenging questions, who provides fresh look to familiar issues and offers constructive critique to mentees who are professionals in training and who are in the process of developing their own identities.

Another role that mentors adopt is that of an advisor. Montgomery et al. (2014) in their study have explained the difference between an advisor and mentor as “an advisor is one who provides general curriculum advice about adherence to rules and/or standards that apply for any student in a particular educational program”, whereas

“Mentoring is a significantly deeper relationship, one in which the mentor and mentee commit to meaningful and honest sharing to support a particular individual. The sharing allows the mentor to develop a multifaceted personal understanding of the mentee and provide committed assistance in order that the mentee progresses toward achieving his or her academic professional goals.” (Montgomery et al., 2014, p.3)

Hence, the role mentors adopt has profound impact on communication in mentoring and mentoring relationship.

*Mentors' skills in communication mentoring.*

Iancu-Haddad and Oplatka (2009) in their study have argued that mentors have inborn interpersonal skills, which cannot be acquired through learning.

However, to give a solution for those aspiring to be mentors yet lacking inborn skills Bird (2001) study has suggested mentors use these interpersonal skills to share their experiences and expertise, they reflect on their success and failure, and they can explain lessons learned. Additionally, mentors require professional skills based on professional knowledge to make a positive impact on mentoring. Mentors as professionals should be proficient in identifying the difficulties, stages of professional development, knowledge of professional boundaries, and they should be reflective (Johnson, 2003; Schatz-Oppenheimer, 2016).

Expanding the topic further Bird (2001) study has added to the professional skills required in mentors that they should be articulate and sensitive while addressing issues. Adding to the debate of mentors' professional skills Stowers and Barker (2010) in their study have put forth that the ability to assist mentees in identifying, evaluating, and examining a challenge with being both a good questioner and a good listener are desired professional skills in mentors. Furthermore, Rippon and Martin (2006, p. 86) study has eloquently supplemented the required skills as "the best mentors are those who can negotiate their way through the shifting sands of support at the right time for each person, allowing the power to shift accordingly." A sentiment shared in Feldman, Arian, Marshall, Lovett, and O'Sullivan (2010) and Hobson et al. (2009) studies that mentors need to be versatile to change their style to cater to mentees individual needs based on realities and experiences of mentees.

In short, as Jackson et al. (2003) in their study have suggested effective mentors influence mentoring in a positive way because they have knowledge, network, and they are interested in mentoring by providing personal and professional support. Thus, as Snoeren, Raaijmakers, Niessen, and Abma (2016, p. 239) in their study have posited a successful mentor is the one "having the skills and knowledge to effectively support mentee development by facilitating the attainment of the transferrable skills, knowledge, and confidence (competencies) necessary to meet individual goals."

### *Interpersonal influence of mentors' motivation.*

Mentors' motivation also has great interpersonal influence on communication in mentoring. The study by Allen (2003) has shown that mentors having self-enhancement motives (extrinsically oriented self-focused motives) are focused on or provide career mentoring. The mentors having self-gratification motives (intrinsically oriented self-focused motive) provide psychosocial mentoring. The mentors whose

motives are benefitting others (other-focused motives) provide career and psychosocial mentoring.

*Mentors' skills in communication in mentoring.*

As stated earlier, due to the influence of mentors' role it is essential for mentors to learn to communicate with mentees. Mentors are required to respond to different needs and requirements of their mentees, and to cater to it mentors need to be versatile in their skill sets and in communication strategies. Therefore, a mentor needs to possess multiple skill sets, apt at discerning mentees needs and requirements, and be able to communicate effectively. Exceptional mentors who are born with these qualifications are far and few; hence, mentors need to be trained to adopt these skill sets.

Bradbury (2008) in a study has suggested communication between mentor and mentee can also be improved when mentors, who are volunteers or are chosen to be mentors, are trained to share their practice with mentees. And, Ganser (1996) has added that even “exemplary teachers need special knowledge and skills for effective mentoring” (p. 5). Concurring to the notion, Hennissen et al. (2010) in their study have stated that having experience is not enough, mentors should develop “attitudes, knowledge and skills in specific domains of mentoring” (p. 207). Effective mentors make their mentoring sessions productive by not only focusing on mentees growth and development but also on facilitating mentees careers by focusing on their requirements (Hudson, 2013). This would not be an easy task as it has been established that mentoring is a complex process; therefore, trained in art of mentoring by switching roles and strategies (Crasborn et al., 2011); mentors need to be versatile (Dobrowolska & Balslev, 2017), and productive using effective communication.

Furthermore, Crasborn et al. (2011) in their study have elaborated that mentors trained by the mentoring programs achieve the goal of facilitating mentees personally and professionally by being receptive and adaptive to mentees needs. They adopt the roles of initiators and encourager (Mena, Hennissen, & Loughran, 2017); to “engage in discussion not by giving answers to one another but by forming guiding questions. It was a time of taking risk, engaging in self-analysis, trying out new behaviours, and seeking and receiving feedback on the results” (Kochan & Trimble, 2000, p. 23). On the other hand, Hennissen et al. (2010) study has claimed that untrained mentors might prefer directive style; they talk more in mentoring conversations which, as suggested in Mena et al. (2017) study, subsequently affects mentee participation .

Furthermore, mentors need training to translate their experience into teachable and useful information for mentees after understanding mentees and their requirements. So they can provide individualized support in an open and honest communication established between mentor and mentee (Montgomery et al., 2014). Trained mentors would, therefore, be better equipped to create an environment of open communication. Open communication for effective mentoring is established with mentors becoming listeners and reflective partners of mentees. This, however, does not mean avoiding direct answers because as Garvis, Twigg, and Pendergast (2011) study has highlighted that mentors' expertise in the subject as well as feedback has insightful effect on mentees. In fact, open communication should be a combination of both, as has been suggested in Barkham (2005) study, the effects become profound when mentors adopt the role of good listeners and they encourage mentees to locate answers from within through reflective questions.

Moreover, mentors need to be reflective of their own practices and they should encourage reflection in mentees. Holloway and Gouthro (2011) study has described reflection as, to question and critically analyse, it is essential for mentees to enhance their teaching experience. And Hudson and Hudson (2010, p. 7) study has elaborated that it is the mentors job to "facilitate reflection while building confidence and competence" of mentees. Hence, reflection is more than simply "recasting of events or episodes" (Freese, 1999, p. 896). In order to further enhance our understanding of reflection, Kullman (1998) study has elaborated the concept of reflection using Dewey's (1933) description that to be reflective three attitudes are required namely,

'Open-mindedness', which implies an openness to new ideas and thoughts; 'whole-heartedness', which implies the capacity to fully engage with new ideas and actively seek them out; and 'responsibility', which implies being aware of the meaning and consequences of one's actions. (Quotation marks used as in Kullman, 1998, p.472).

Additionally, mentors need to be trained to encourage mentee ingenuity through their communication skills. Successful mentoring is not mimicking mentor's style; rather it is to develop mentees' own style. Therefore, mentors should not expect from mentees to reproduce mentors' style and evaluate mentees on successful replication, and mentees should not comply with such demands for sake of open communication and good evaluation report. Hawkey (1998) in the study has argued that it is necessary to ensure the quality of mentoring being provided to mentees, that

is, a mentor involved in such a practice should be stopped. Therefore, as Crasborn, Hennissen, Brouwer, Korthagen, and Bergen (2008) study has claimed a successful mentoring partnership would be in which open communication between mentors and mentees exist due to trained mentors with versatile skills well matched with the mentees' requirements.

*Interpersonal influence of responsibilities on mentors.*

Responsibilities of mentors are multidimensional as per the job requirement as mentors to cater to personal and professional needs of their mentees. Schatz-Oppeneimer (2016), and Mann and Tang (2012) studies has delineated responsibilities of mentors including developing interpersonal ties, emotional support, professional/pedagogical support, and evaluation. And Montgomery et al. (2014) study has suggested catering to this diverse demand by investing time in getting to know mentees, their strengths, and weaknesses would be a good investment from mentors.

Moreover, it is imperative for mentors to outline personal and professional boundaries of this relationship. They should discuss the goals of mentees, the scope of mentoring relationship, and they should periodically revisit and revise it (Ensher & Murphy, 2011; Hobson et al., 2009). And, as Chaliès et al. (2004) study has posited instead of readymade solutions to be blindly followed by mentees, mentors should make an effort to engage mentees in constructing their own knowledge.

*Interpersonal influence of mentee in communication in mentoring.*

The Cambridge online dictionary defines *mentee* as “someone who is given support and advise about their job by a mentor (=a more experienced person who helps them).”<sup>6</sup> The word *support* is defined as “to help someone emotionally or in a practical way.”<sup>7</sup> The literature on mentoring research has discovered many dimensions to mentoring, thus, a comprehensive definition of a mentee used in this study is, mentees are self-motivated individuals who are committed to their personal and professional growth and require psychosocial and career advice as well as support from some one who has more experience, skills, and training, as established earlier.

*Interpersonal influence of mentees' role on communication in mentoring.*

Mentees being the equal partners in communication in mentoring relationship influence the relationship as well as mentors. The role of mentee in communication in mentoring is vital as it has substantial interpersonal influence on the success of

<sup>6</sup> <https://dictionary.cambridge.org/dictionary/english/mentee> as seen on 13 February 2018

<sup>7</sup> <https://dictionary.cambridge.org/dictionary/english/support> as seen on 13 February 2018

mentoring relationship. The role mentees select reflect their level of ownership of the mentoring relationship, affecting its outcome. As suggested in Zerzan, Hess, Schur, Phillips, and Rigotti (2009) study it is important that mentees take ownership of the relationship and decide what they need to learn and how, as their stance impacts the relationship

Ambrosetti and Dekkers (2010) in their study have stated that mentees' roles are inter-connected to mentors' roles; supporter-open, role model-observer, facilitator-active participants, collaborator-works with others. To make the mentoring relationship a success, Hawkey (1998) study has suggested that mentees should make effort to educate themselves about different mentoring roles and styles that may serve them best according to their needs.

Moreover, research has suggested that mentees who take initiative in managing their careers receive more focused and productive mentoring from mentors (Allen & Eby, 2004; Hu, Wang, Yang, & Wu, 2014). Multiple studies have shown that high performance mentee are likely to get more help than low performing mentees (Allen & Eby, 2004; Janssen, van Vuuren, & de Jong, 2014). Mentees can achieve this by taking initiative to communicate with mentors, "ask questions to get new insight, verify or clarify ideas, show interest and listen actively" (Zerzan et al., 2009, p. 143).

Additionally, Hu et al. (2014) study has revealed that mentors and mentees are not 'passive agent' and they can work together to improve the relationship. Different expectations can cause a discord between mentor and mentees; mentees should assume the role of active agent as compared to passive agent and communicate their expectations to mentors. Lending support, Ensher and Murphy (2011) in their study have suggested that mentors and mentees should make their expectations explicit in the beginning or as soon as a problem arises.

Furthermore, mentee should take a constructive role to equally participate in their personal and professional growth. Ryan and Healy (2009) in their study have stated that mentees' experiences influence their professional growth and sometimes lead them to "problematic and unexamined" assumptions (p.424). It is important that mentees play a constructive role to take into account and address such assumptions; otherwise, mentees would not be able to progress successfully. These assumptions could be blind following of mentor as teachers are always right. It could also be that voicing your ideas that might contradict what mentor is saying is impolite. Such

assumption would prevent mentees from expressing their ideas. Therefore, mentees should be made aware of the fact that becoming active and constructive partner in mentoring communication is beneficial for mentees and mentors, and this study investigated the interpersonal influence of mentees' role on communication in mentoring.

### ***2.3.3.3 External influences on communication in mentoring.***

External influences on communication in mentoring could be shortages of mentors (Johnson & Kardos, 2005); over load of work on mentors which affects their performance and they may feel isolation due to their role as mentors (Bullough, 2005; Maynard, 2000); the mentoring environment; the selection and pairing process (Hobson, Ashby, Malderez, & Tomlinson, 2009); or lack of professional expertise (Ehrich, Hansford, & Tennent, 2004).

A major external influence on communication in mentoring is selection and pairing criteria. Bell and Treleaven (2011) study has discussed two types of pairing: informal and formal. In the informal pairing, the mentors and mentees pair-up due to mutual understanding and respect. In such cases the chances of successful partnership are higher. On the other hand, the coordinators of mentoring programs organize formal pairing, with the focus on mentees' requirements and the mentors' capabilities.

Moreover, as has been stated in Salas-Lopez, Deitrick, Mahady, Gertner, and Sabino (2011) study when mentors and mentees enter mentoring relationship voluntarily they establish an environment of trust and respect; which leads to effective communication. On the other hand, Ehrich, Hansford, & Tennent (2004) study has found that professional mismatch could also be a reason for unsuccessful mentoring pairs. Mismatched could be due to different backgrounds, age, interests, and personality (Eby & Lockwood, 2005). Further expanding the topic Eby, Butts, Durley, and Ragins (2010) study has claimed that a mismatch in mentoring causes dissatisfaction in mentees as well as mentors. In support of this notion McCann (2013) study has asserted that match between mentors and mentees is the key to successful relationship, having an "unsympathetic, unsupportive, and unresponsive" mentor would do more harm than good (p.88). Therefore, a good match is necessary for good mentoring relationship established with effective communication, however, what ensues when a good match is not achieved was also investigated in this study.

## **2.4 Conclusion**

In this chapter, to understand why communication in mentoring is successful or unsatisfactory, I explored in detail communication in mentoring from research literature focusing on multiples aspects such as types, features and influences on communication in mentoring. I divided the chapter in two sections to make the relationship between mentoring and communication clear, in first section I described in detail mentoring and its relevant aspects; and in the second section, I explored in detail communication in mentoring and its multiple aspects to emphasise the importance of communication in mentoring while drawing on relevant research literature.

## **Chapter 3- Research Methodology**

### **3.1 Introduction**

In this chapter, I will explain in detail the research methodology I employed to conduct research for this study. I will start with defining the research paradigm used in this research followed by research design. I will then discuss in detail methodological procedure adopted for conducting research and lastly I will talk about ethical issues before concluding this chapter.

### **3.2 Research Paradigm**

In this research, I adopted constructivist approach following Charmaz (2014) who has stated, “I chose the term ‘constructivist’ to acknowledge subjectivity and the researcher’s involvement in the construction and interpretation of data” (p.14). The decision to follow Charmaz (2014) was based on three significant factors, one, the topic of inquiry, two, the study participants, and third, researcher subjectivity. The first factor was depth of the topic ‘Communication in Mentoring’, which required in-depth, open-minded study to develop understanding of the topic without preconceived assumptions or hypotheses; therefore, positivist view was not suitable for this study. The second factor was the participants; instead of mere reporting what they said, which would not have been enough, the study required a stance that would allow the participant to discover and share nuances of their experiences, understood and developed, with the help of the researcher, this again refutes the cause of positivism. And third factor was myself as a researcher; I was groomed, during my MS ED. in the U.S. as a researcher and later as a lecturer in Pakistan, to use constructivist approach. Hence, these three factors guided my decision to follow Charmaz’s (2014) constructivist approach.

### **3.3 Research Design**

I decided to compliment the constructivist approach with qualitative research using Grounded Theory (GT) and case study approach to research the topic in detail.

### 3.3.1 Qualitative research.

I was curious to explore communication in mentoring from the perspective of mentors and mentees, and qualitative research was best option to explore such topic. My decision to use qualitative methodology was based on the fact that it's basic tenets resonate with how I wanted to approach the topic of my research. I will now discuss these reasons one by one in the paragraphs below.

Bryman (1984) calls qualitative research a voyage of discovery; he has asserted that focus of qualitative research is not to verify existing theories rather to discover new facts. These new facts or information could be as Ambert, Adler, Adler, and Detzner (1995) have elaborated, "New information may reflect new practices or behaviours, new forms of social organization or social structure, and/or new ways of thinking or interpreting processes of socialization or change. It may involve complete redirection, or modification of, or additions to, existing ideas" (p.880). Qualitative research awarded me this openness of mind to expect unexpected while exploring the topic communication in mentoring in new light as new facts emerged from data. However, I was aware that this is voyage of discovery was not possible if one has preconceived ideas. As Cox (2012) has stated, "with a preconceived remedy in mind, the researcher's immediate goal can easily become a search for evidence that justifies the preferred remedy" (p.132). Therefore, I started the research with a clean slate, with no suppositions, no assumptions, and no problems that needed to be solved.

Furthermore, I used qualitative approach because the ultimate goal in qualitative research is to understand the "phenomenon from the perspective of those experiencing it" (Vaismoradi, Turunen, & Bondas, 2013, p. 398). I wanted to explore mentors and mentees views regarding the formal mentoring programs that they were a part of in formal setting. Also, Arnold and Lane (2011) have defined objectives of qualitative research as, "to explore and understand meanings that participants construct about their world and their experiences and to understand and explain why participants behave as they do in a particular situation (p.688)." Therefore, I used qualitative case study approach, as I wanted to explore how mentees construct meaning of their experiences with mentors, and to explain what mentoring means to them. Furthermore, Fossey, Harvey, McDermott, and Davidson (2002) have posited that quality of qualitative research rests on "...whether participants' perspectives have been authentically represented in the research process..." (p.723). During the course of the research I wanted to make sure that authenticity of the information provided

should be maintained to the highest level. In order to achieve this goal I decided to use qualitative research methodology ensuring unbiased accounts of mentors and mentees experiences.

### **3.3.2 Qualitative research methodology tools.**

In order to conduct qualitative research I decided to use case study approach and GT as qualitative research methodology tools. I will now discuss my reasons for choosing case study approach and GT in detail.

#### ***3.3.2.1 Collective exploratory case study approach.***

I decided to use case study approach in this qualitative research; however, due to nature of the topic I combined multiple case studies with future directions; hence, I used collective exploratory case study approach.

I selected case study as a tool because the topic of my research dictated that I select an approach which would allow me to study mentors and mentees perceptions in its real life context, that is, as they were experiencing it. And Yin (2003) has described that a case study allows researcher to explore a topic in its real life context. Furthermore, Crowe et al. (2011) in their study have stated, “a case study is a research approach that is used to generate an in-depth, multi-faceted understanding of a complex issue in its real-life context” (p.1). I wanted to focus on the complexity to understand of communication in mentoring and a survey would not have given me nuances of the complexity, the “*what*” and “*why*” gaps (Crowe et al., 2011, p.4; italics used in the original text), hence I decided to use case study approach.

Furthermore, since I wanted perceptive of mentors and mentees on communication in mentoring I was aware that one or two cases would not be enough even if I study in detail because it is a cross-sectional study and not a longitudinal study. Therefore, I decided to use collective case study approach studying multiple cases for both mentors and mentees to enhance the database. Also, as Stake (1995) has posited in collective case study similarities and dissimilarities add to the understanding of the phenomenon. I was interested in learning about mentors and mentees perceptions of communication in mentoring which required that I look for similarities and dissimilarities in their ideas and thoughts; therefore, I decided to opt for collective case study approach so that I can get a variety of views. Moreover, Crowe et al. (2011) have added that collective case studies offer the opportunity to draw comparisons across multiple cases. Therefore, I chose to conduct twenty-five

interviews with mentors and mentees to build a case based on the participants' similarities and dissimilarities, and drawing comparison between them to provide an in-depth analysis of the issue at hand.

Additionally, Yin (2003) has suggested that an exploratory case study evaluates a given situation with a focus on future investigation of the phenomenon. The focus of the present research was to understand mentors and mentees perceptions of communication in mentoring with an aim to make the interaction fruitful for both in future. To achieve this goal it is sine qua non to point out the gaps and find the solution for filling up the gaps in the interactions to make it a successful experience for mentoring dyads. Therefore, the case study approach I employ is not only authentic representation of mentors and mentees experiences in communication in mentoring it is also a collective study providing comparing and contrasting opportunities, and it is exploratory in nature for future recommendations.

### **3.3.2.2 Grounded theory.**

I used GT as a qualitative research tool in this study because of the freedom it provided me to explore the topic communication in mentoring in-depth. This freedom is the ability to choose from three schools of thought in GT that are bind together with a core concept that theory should emerge from the data yet it allows the researcher to conduct analysis using coding schemes from any one or a combination of the three schools of thought depending on the study requirements.

These three schools of thought are Glaser and Staruss (1967), Strauss and Corbin (1990) and Charmaz (2006). In 1967, Glaser and Straus published *The Discovery Of Grounded Theory: Strategies For Qualitative Research*. They advocated developing theories grounded in data with focus on analysis strategies. Kenny and Fourie (2014) have recounted Glaser and Strauss argument that during the process of generating a theory, not only do the concepts and hypothesis directly emerge from the data, but also they have been systematically refined by it. And Glaser and Strauss proved that qualitative analysis could be methodical, rigorous, and structured (K. Charmaz, 2006). However, in 1990 Strauss parted ways with Glaser and published a book in collaboration with Corbin titled *Basics of Qualitative Research: Grounded Theory Procedures and Techniques* (1990). Walker and Myrick (2006) have brought to light that Glaser's and Strauss's paths diverged, however, it was on coding and verification issues not the core idea of theory developing from the data.

In 2006, Charmaz in *Constructing Grounding Theory* (2006) established a new branch of GT within the constructivist paradigm. This Constructivist Grounded Theory was influenced by Glaser's and Strauss and Corbin's GT yet it rejected many beliefs. As Kenny and Fourie (2014) have argued Charmaz's (2006) Constructivist Grounded Theory rejected Glaser's claim of discovering theory, rather she suggested that theory is co-constructed between researchers and the participants of the study drawing on experiences, knowledge and background of both. Charmaz also deviated from Strauss and Corbin's GT due to its prescriptive coding schemes (K. Charmaz, 2006).

In this study, I decided to use GT because it is thorough, as Jacelon and O'Dell (2005) have stated, it an on-going process of continually reviewing the data, refining questions, and re-evaluating the changes. And in GT I chose specifically Charmaz's (2006) Constructivist Grounded Theory, as I knew that my background, life experiences, and personal and professional knowledge would be a helpful tool in this research and I wanted to take advantage of it to make this research a successful event.

### **3.4 Methodological Procedure**

In this section, I will discuss in detail data collection process. I will also explain sampling techniques used in the study and procedure for evaluation of this qualitative research.

#### **3.4.1 Data collection.**

Once I was sure of the main area of research namely, communication in mentoring from mentors' and mentees' perspective, I commenced with the data collection process. The data collection stage was based on two main pillars:

1. Sampling Scheme
2. Data Collection Scheme

##### ***3.4.1.1 Sampling Scheme.***

The first most important step in data collection was selecting the participants of the study and the second step was to invite them to participate in the study. I accomplished this in two stages:

1. Sampling Stage-1
2. Sampling Stage-2

Sampling Stage-1 was my first attempt to define and invite the participants. However, based on the response I received I changed my strategy in Sampling Stage-2 for optimum gain.

*Sampling Stage-1.*

The focus of Sampling Stage-1 was to define study participants and send participation invites. I completed this stage in two phases, namely,

1. Initial defining the participants
2. Initial invitations

*Initial defining the participants.*

Onwuegbuzie and Leech (2007) in their study have stated that a researcher should be specific about the choice of cases depending on “research objectives, purpose, and question(s)”(p. 117); I was sure about obtaining mentors’ and mentees’ perspective. However, despite surety of cases I faced one critical question at this stage, ‘Who is the right participant?’ Morse (1991) has defined a ‘good’ participant as the one who is “articulate, reflective and willing to share” with the interviewer (p.127). I wanted to explore communication in mentoring from willing, reflective, and articulate input of mentors and mentees yet I knew who those mentors and mentees would be, needed to be defined further.

*Initial criteria for mentee.*

First, I decided to define whom do I refer to when I say mentees. I asked myself, do I want to interview mentees as in anyone who is being mentored by their supervisors? These would include Master students, PhD students and Postdocs working on their respective thesis or papers under mentorship of their supervisors. Or, do I want to interview mentees enrolled in mentoring programs of their universities?

If I were to choose the first cadre then I needed to keep in mind that each one has different needs from the other because each one represents a different stage of scientific career. Therefore, treating them as single entity would have jeopardized the essence of the study. The second cadre was the mentees in the mentoring programs. Different German universities have different criteria for mentees in their mentoring programs. Some mentoring programs are for postdocs only and some universities allow PhD students along with postdocs to participate as mentees in the mentoring programs.

In this chapter, I will explain in detail the research methodology I employed to conduct research for this study. I will start with defining the research paradigm used in this research followed by research design. I will then discuss in detail methodological procedure adopted for conducting research and lastly I will talk about ethical issues before concluding this chapter.

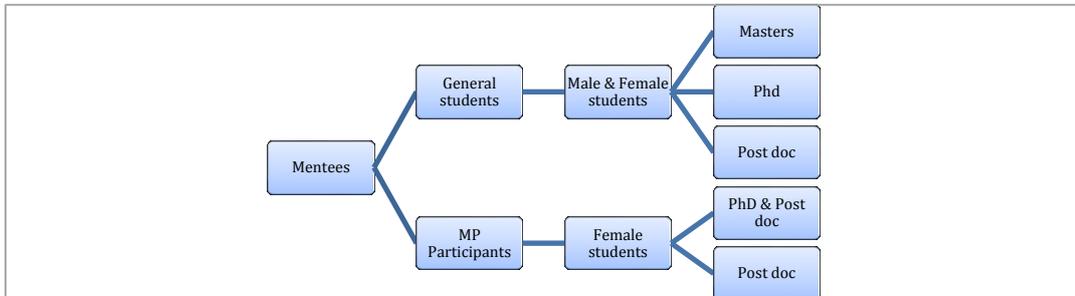


Figure 1. Mentee criteria. Initial criteria for mentee selection.

As seen in Figure above, the choice before me was vast, especially if I wanted to include students from both genders and all matriculation levels. However, such variety could have provided me with multi-layered data, which would not have been possible for a single researcher to handle. Therefore, I decided to opt for Mentoring Program (MP) participants bringing my choice down to programs for female students doing postdoc, or a combination of female students doing PhD and female students doing postdoc. I was aware of the fact that by making this choice I was limiting the scope of the study, however, I was also aware of my own limitations as a single researcher. Therefore, I decided to further focus the study to female postdocs participating in mentoring program across Germany irrespective of their age, marital status, children, and work experience as seen below.

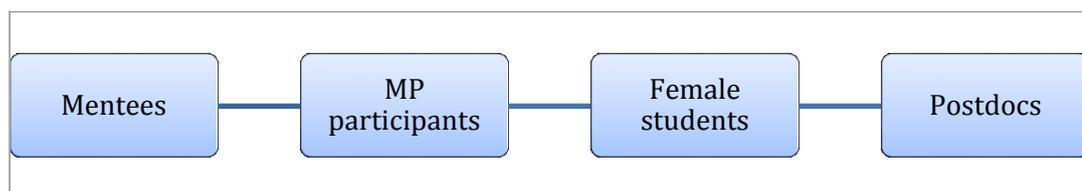


Figure 2. Selection criteria for mentee in the study

#### *Initial criteria for mentors.*

The mentoring programs across Germany, I accessed for this study, had criteria for mentees that they should be female and must be enrolled as postdoc with the university. Conversely, for mentors there were no restrictions, both male and female professors could join the mentoring program as mentors. This is due to

paucity of female professors in German academic system. These mentoring programs are a step towards catering to this deficiency. Keeping this fact in mind and working along the mentoring programs guidelines I decided to keep the criteria for mentors open (see figure below). Therefore, mentors in the study who were interested in sharing their experiences were welcome to join the study.



Figure 3. Selection criteria for mentors in this study

*Initial invitations.*

After defining the participants of the study, I will now focus on participation invites to the participants. At this stage to strengthen my decision of interviewing mentees from mentoring programs I made two assumptions based on the fact that German government supports these mentoring programs “to counter the under-representation of women in certain disciplines and in the future academic career”<sup>8</sup>. First assumption was that it would be easy for me to contact participants in mentoring programs due to the structure of the programs. And secondly, the mentoring programs across Germany would be operating on single *modus operandi*; therefore, making the comparisons between different pairs of mentors and mentees would be easy.

My first assumption was correct to some extent. I contacted the mentoring program of my university, which supported and encouraged me to conduct the study, and they also guided me to contact Forum Mentoring, a platform for supporting mentoring programs. I reached out to Forum Mentoring for connecting me to participants; however, accessing participants became a core issue in the study as the participants could only be accessed through mentoring program coordinators. Devers and Frankel (2000) have posited, “understanding gatekeepers views is critical for negotiating and maintaining access, and maintaining the integrity and credibility of the research” (p. 265). Implementing this approach was a daunting task as the ‘gatekeepers’/program coordinators were sometimes silent and did not respond, and sometimes they were considerate yet could not share mentor and mentee lists due to confidentiality issues, hence taking out the option of contacting participants directly.

<sup>8</sup> As seen on 6 August 2017 on [http://www.forum-mentoring.de/index.php/verband\\_top/verband/entstehung/](http://www.forum-mentoring.de/index.php/verband_top/verband/entstehung/)

Furthermore, the helpful and friendly gatekeepers could only circulate the participation invites a few times, and therefore, it all came down to participants' willingness to respond to the call for interview.

Marshall (2006) has asserted that ideally the researcher must decide whom to interview, where and when among other decisions. However, as in this study often choosing participants who respond to call for participation may be the only option available to researcher and researcher has to make best of it (Bernard, 2011). As was evident in this case, I was hoping for an overwhelming response, as I believed that many would be interested in sharing their experiences. I stand corrected, as I received only two responses one from a mentee immediately and another from a mentor. And over a period of one year the total count was twenty-five participants from across Germany. Bernard (2011) has argued that elite groups such as surgeons and professional athlete are hard to reach population who are not interested in research and would not respond to call for participation. The study found that professors and postdocs are can also to be added to this category of hard to reach population who are 'hidden-by-choice' (Noy, 2008, p. 331).

Furthermore, both participants were independent candidates and it contradicted my second assumption that I would be able to compare and contrast mentor-mentee dyads communication in mentoring. Nevertheless, I immediately contacted both participants and arranged interviews with them as per their convenience.

#### *Sampling stage-2.*

At this stage, I realized that I needed to redefine my participants and I also needed to rethink my strategy of contacting participants. I focused on the issues at hand in two phases, namely:

1. Revised defining the participants stage
2. Revised sending the invite stage

#### *Revised defining the participants stage.*

Based on the response of Initial Sending Invite Stage I revisited my participants definition. My criteria for mentees remained same that I would interview female postdocs enrolled in mentoring programs of their universities. However, I changed the criteria for mentors that they should be part of a pair. I believed that if I

lifted this restriction then I would be able to include mentors, who would be willing to join the study, to resolve the issue of lack of participant to some extent.

This decision meant that I would not be specifically studying pairs as intended earlier. At this stage I was faced with a few critical questions, such as, if I don't study pairs then how would I understand communication happening between them. I was planning to interview both mentors and mentees and then drawing comparisons, and observe them in a mentoring session. Moreover, question of research credibility also came to foreground because I wanted to use observation of mentoring pair as data collection tool along with interviews, memos and field notes (I will discuss this in credibility section). To solve this dilemma I adopted an open-minded approach to interview all willing participants because I knew I was early in the data collection stage and I had planned data collection over a period of one year to employ theoretical sampling, therefore, I had the advantage of time to wait and see how it all unfolds.

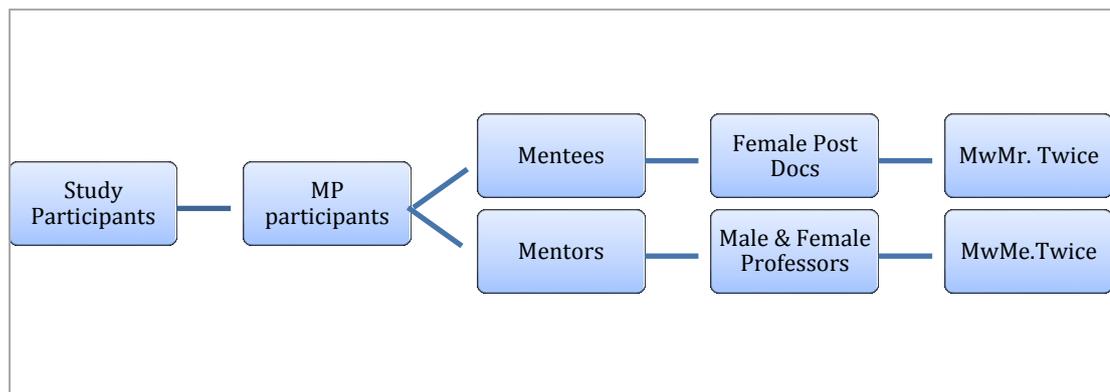


Figure 4. Criteria for study participants

Thus, as seen above, the criteria for study participants was simplified that any mentee responding to the participation invite (see appendix. III), who is a female postdoc enrolled in a mentoring program and has met with mentor twice (MwMr.) would be part of the study. I added the twice criteria on the assumption that if mentor-mentee dyads have met twice and they are still a pair then their relationship is worth exploring. And similarly, any mentor respondent to the participation invites who are mentors in mentoring programs and have met with mentees (MwMe.) twice would be included in the study.

#### *Revised invitation stage.*

I also revised the invitation strategy, Forum Mentoring website provided information about different mentoring programs across Germany so I decided to contact the mentoring programs individually.

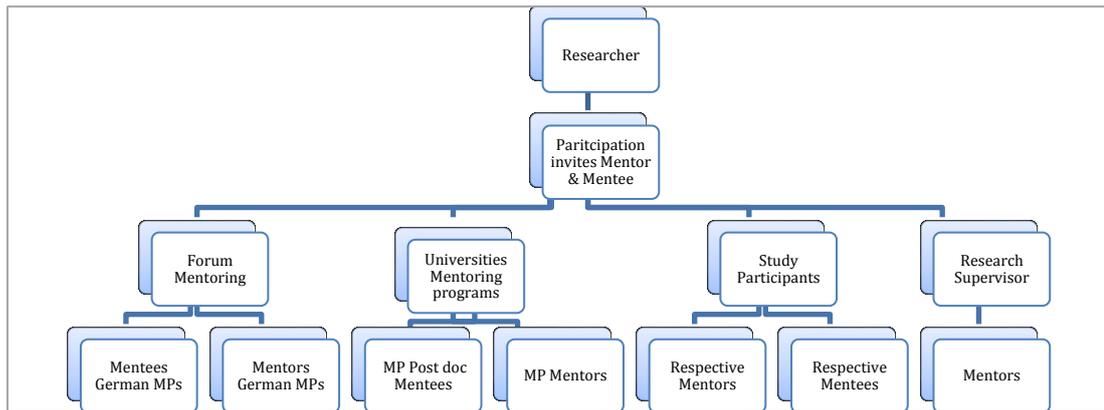


Figure 5. Revised sending invite stage

As seen above, I contacted Forum Mentoring and after receiving a weak response I started contacting mentoring programs of different universities directly. I selected these universities based on the information provided on Forum Mentoring website so that I only sent invites to mentoring programs that cater to postdocs as many mentoring program focus on PhD only, or include bachelor or master students, or offer group mentoring. So I systematically sent emails to mentoring programs of universities in one region that is offering one-to-one mentoring to postdocs. The focus was on one-to-one mentoring because different mentoring programs offer different opportunities to mentees like one-to-one mentoring, seminars, workshops, and group mentoring. I was specifically looking for programs offering one-to-one mentoring along with other opportunities.

Moreover, I decided to request my research supervisor as well for further participants. The target now was to send the invites for mentors and mentees in waves. That is, send the participation invite for mentors and mentees to universities' mentoring programs in a different state each month along with Forum Mentoring, and once I started receiving response I was planned to ask mentees or mentors to invite their respective mentors or mentees to participate in the study. This way I was sure to get maximum response as my invites would be reaching a wider audience.

#### **3.4.1.2 Data collection scheme.**

Initially, in the data collection scheme I was planning to use theoretical sampling because in GT data is collected using theoretical sampling, the researcher interviews a few participants and based on the data the interviewer further selects whom to interview next (Glaser, 1978). However, over one year of data collection period I realized that even in GT, data collection is a complex process and involves

multiple data collection techniques working hand-in-hand with theoretical sampling. I will now discuss data collection scheme used in this research in detail.

The invites for participation in the study were sent to mentors and mentees using multiple sampling techniques in collaboration with theoretical sampling in three phases (as seen below) namely:

1. Preparatory Phase
2. Main Data Collection Phase
3. Concluding Phase

Table 1  
*Data Collection & Coding Overview*

Data Collection & Coding (April 2016- June 2017)								
Data Collection Waves	Months	Interviews	Transcribed Interviews	Field Notes	Memos	Literature Review	Initial Coding	Focused Coding
<b>Phase 1- Preparatory Phase</b>								
Mock Interview	April 16	1	-	-	-	-	-	-
Wave 1- Pilot Interviews	May 16	2	-	-	-	-	-	-
	June 16	-	-	-	-	-	-	-
<b>Phase 2- Main Data Collection Phase</b>								
Wave 2-Interviews	Aug 16	4				-	-	-
Wave 3-Interviews	Sep 16	5				-	-	-
Wave 4-Interviews	Oct 16	3				-	-	-
Wave 5-Interviews	Nov 16	1				-	-	-
	Dec 16	1				-	-	-
	Jan 17	1				-	-	-
<b>Phase 3-Concluding Phase</b>								
Wave 6-Interviews	Feb 17	3				-	-	-
Wave 7-Interviews	March 17	4				-	-	-
	April 17	-	-	-	-	-	-	-
	May 17	1				-	-	-
	June 17	-	-	-	-	-	-	-
<b>Total Interviews</b>		<b>25</b>						

#### *Preparatory phase.*

The preparatory phase started when I sent the first wave of participation invites to mentees via Forum Mentoring in April 16.

#### *Wave 1- Interviews & Initial Coding.*

It consisted of three steps:

1. Mock Interview
2. Pilot Interviews
3. Initial Coding

#### *Mock interview.*

In the preparatory phase, I first conducted a mock interview with a random PhD student to check the interview guide that I had prepared earlier. And I also wanted to explore my interviewing style and its weak points, issues related to interview recording, my field notes and memo writing. Since this was my first

interview I found that I had many issues that needed to be resolved and I worked towards it before starting interviews for the study. The mock interview was not part of the study; therefore, it was not audio recorded, transcribed or memoed.

*Wave 1- Pilot interviews.*

Glaser (1978) has stated that initial decisions in data collection “are not based on preconceived framework of concepts or hypothesis” (p.44); rather they are “based on sociological perspective and on general problem area” (Coyne, 1997, p. 629); therefore, the first wave of data collection was purposive as well as convenience sampling, so I called it purposive- convenient sampling. The term purposive-convenient sampling is literal combination of their definitions; that is, purposive sampling is where participants are selected for “predefined traits or conditions” but it has the flexibility to change if required for the progress of the study (Abrams, 2010; Devers & Frankel, 2000; Luborsky, 1995, p. 104). And convenience sampling is a “glorified term” for participants (Bernard, 2011, p. 147); who are easy to reach, available and willing to participate with open period of recruitment and pre-defined population (Hesse-Biber & Leavy, 2010; Luborsky, 1995; A. J. Onwuegbuzie, & Leech, N. L. , 2007). Based on these definitions purposive-convenience sampling was used in the study. It can be defined as sampling scheme in which the purpose, target population and setting is predefined but has the flexibility to change depending on the accessibility, availability and willingness of the participants to take part in the study.

In the study during the first wave of interview stage I used “logic and power” of purposive sampling in purposive-convenience sampling “information-rich” participants (Patton, 1990, p. 169), that is, a professor and a post doc. When I was confident that I had improved my interviewing skills then I conducted the first interview and the second interview with in two weeks of each other. The interview participants were a mentor and a mentee, and both were females (see table below). I was satisfied with interviewing knowledgeable people and I had information rich data, which gave me hope for future interviews (Glaser, 1978). I transcribed the interviews, wrote memos, and field notes without delay. I referred to these interviews as pilot interviews because based on information provided in these interviews I reset the interview guide for the next set of interviews.

*Initial Coding.*

During the preparatory phase I also started initial coding of the data provided in the pilot interviews. I started initial coding at this stage for two reasons; one, that I

had no further confirmed interview and I wanted to use the time in a constructive manner, and second, that I knew I wanted to employ theoretical sampling and initial coding the data provided the base for the next interview guide.

Table 2  
*Wave 1- Interviews*

Participants	No. of Participants	Gender		Pair /Single	Interview mode
Mentor	1	Female-1	Male -0	Single-2	Face-to-face-2
Mentee	1	Female-1	Male -0	Pair-0	
Number of Interviews	2	Female-2	Male -0		

#### *Main data collection phase.*

The data I collected in preparatory phase helped me in using theoretical sampling as main sampling scheme. Coyne (1997) has elaborated theoretical sampling is the “process of data collection whereby the researcher simultaneously collects, codes and analyse the data in order to decide what data to collect next” (p.625). However, initial decisions in theoretical sampling regarding participants were based on what phenomenon is to be studied and where it could exist (Glaser, 1978). Therefore, in the first wave of interviews the participants were contacted using purposive-convenience sampling. After the first wave a concept started to emerge; to explore this emerging concept theoretical sampling was employed. Glaser and Strauss (1967) have explained “the basic question in theoretical sampling is: *what* groups or sub-groups does one turn to next in data collection and for *what* theoretical purpose?” (p. 47). In the study, theoretical sampling not only helped in keeping track of what concept was being explored, but also who was required to be interviewed next in collaboration with other sampling techniques, and it made the whole sampling process an efficient exercise.

Main Data Collection Phase consisted of four waves of sending participation invites to mentees and mentors via Forum Mentoring and independently sending invites to mentoring programs of universities in different states of Germany. Therefore, the Main Data Collection Phase consisted four waves of interviews, review of initial coding and start of focused coding.

Wave 2- Interviews Aug 16

Wave 3-Interviews Sep 16

Wave 4- Interviews Oct 16

Wave 5- Interviews, Initial Coding review, Focused Coding Nov 16-Jan 17

*Wave 2- Interviews Aug 16.*

In the Wave-2, I used homogenous sampling guided by theoretical sampling utilising purposive-convenience sampling. In Homogenous sampling, I tried to interview participants of similar backgrounds and experiences (Patton, 1990). I achieved this by sending second wave of participation invites to mentors and mentees via Forum Mentoring and independently sending invites to mentoring programs of universities in one state of Germany, Niedersachsen. I started receiving response from participants in end of June 16 and early July 16. By the end of July 16 I had received four emails showing interest in the study, however, the participants were mentees and they were available for interviews in August 16. At the beginning of Aug 16 I arranged the interviews as per the participants' convenience. By the end of Aug 16 all four interviews with mentees were transcribed complete with memos and field notes bringing the total no. of interviews to six as seen in Table below.

Table 3  
*Wave -2 Interviews*

Participants	No. of Participants	Gender		Pair /Single	Interview mode
Mentor	1	Female-1	Male -0	Single-6	Face-to-face -6
Mentee	5	Female-5	Male -0	Pair-0	
Number of Interviews	6	Female-6	Male -0		

*Wave 3- Interviews Sep 16.*

For the third wave, I used Stratified Purposeful Sampling and Homogenous Sampling and quite unexpectedly I had a deviant case as well. Homogenous sampling of the mentors and mentees to explore their perceptions in depth and to listen to their stories to see if their narrative compliments those of other participants (Noy, 2008), and stratified purposeful sampling of mentors and mentees to capture variances (Abrams, 2010; Patton, 1990). The combination of Stratified Purposeful Sampling and Homogenous Sampling allowed me to interview mentors and mentees of different genders, age, work experiences, and family structure adding to the credibility of this research.

For Wave 3, in August 16 I simultaneously sent participation invites via Forum Mentoring, FSU-Tri Uni Mentoring program and independently to mentoring programs in universities in the states Nordrhein-Westfalen. The Forum Mentoring coordinator declined to forward the invites program; nevertheless, I received six emails showing interest in the study by four mentees (two females and one male) and three mentors (two female and one male). I immediately arranged the interviews with

all of them in Sep 16 except one who was available in October 16. This brought the total number of interviews conducted till Sep16 to 10 interviews (see table below).

Moreover, as the interviews progresses I observed Silverman's (2006) three features of theoretical sampling: namely, choosing cases in terms of theory, choosing deviant cases, and changing the size of sample during the research were evident in the study's sampling scheme. For instance, I was choosing new cases based on the requirements of the emerging theory that is to interview female postdocs only. However, the second feature selecting deviant cases was not something I was planning on but it happened that a male postdoc in a mentoring program, an anomaly, replied to the participation invite and I was curious to see what he had to say about the topics most female mentees were talking about so I included him in the study a deviant case. Lawrence et al. (2013) has defined deviant case sampling as "differ from dominant pattern, mainstream, or predominant characteristics of other cases"(p. 275). Two deviant cases appeared in the study's sampling scheme along with a steady growth of study participants (I will talk about the other deviant case later). During Sep 16 the five interviews were successfully completed along with transcription, memos and field notes.

Table 4  
*Wave -3 Interviews*

Participants	No. of Participants	Gender		Pair /Single	Interview mode
Mentor	3	Female-3	Male -0	Single-11	Face-to-face-11
Mentee	8	Female-7	Male -1	Pair- 0	
Number of Interviews	11	Female-10	Male -1		

*Wave 4- Interviews October 16.*

Stratified Purposeful Sampling and Homogenous Sampling were employed in Wave 4 as well guided by theoretical sampling. The fourth wave of invites was sent in Sep 16 independently to mentoring programs in universities in the states Bayern and Sachsen. I received two emails from mentees showing interest in the study and I arranged interviews with them in October 16. In October I conducted three interviews (one mentor and two mentees) increasing the interview count to 14 (see table below). The interviews were transcribed immediately along with field notes and memos.

Table 5  
*Wave- 4 Interviews*

Participants	No. of Participants	Gender		Pair /Single	Interview mode
Mentor	4	Female-3	Male -1	Single-14	Face-to-face 14
Mentee	10	Female-9	Male -1	Pair- 0	

Number of Interviews	14	Female-12	Male -2		
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*Wave 5- Interviews, Initial Coding review, Focused Coding Nov 16-Jan 17.*

During October 16, I sent another wave of invites to mentoring programs in universities in the states Brandenburg and Mecklenburg-Vorpommern using Stratified Purposeful Sampling and Homogenous Sampling. I received three emails showing interest one mentor and two mentees. One of them was available via Skype so I arranged a Skype interview with her in Nov 16. The other two interviews were also scheduled for Nov 16; however, I had to rearrange interview dates due to some unexpected international traveling during Nov 16. One of the participants was then available in Dec 16 and one was available in Jan 17 for an interview. I arranged the interview dates with them; meanwhile, during Nov 16 I reviewed Initial Coding and by mid Dec 16 I closed the Initial Coding stage after thoroughly examining each code. In Jan 17 along side the fifteenth interview (see table below), transcribing, memoing, and writing field notes I started Focused Coding the data collected in the Wave 2 of interviews.

Table 6  
*Wave -5 Interviews*

Participants	No. of Participants	Gender		Pair /Single	Interview mode
Mentor	5	Female-4	Male -1	Single-17	Face-to-face 16
Mentee	12	Female-11	Male -1	Pair- 0	Skype-1
Number of Interviews	17	Female-15	Male -2		

*Phase 3: Concluding phase.*

In Concluding Phase I sent two waves of participation invites for mentors and mentees:

Wave 6- Interviews Feb 17

Wave 7- Interviews March 17 & May 17

*Wave 6- Interviews Feb 17*

In Jan 17, I sent a wave of invites to mentoring programs in universities in the states Nordrhein-Westfalen and Hessen. Noy (2008) has stated that if interview participants leave the meeting unsatisfied they are unlikely to refer the study to prospective participants or give their information to the researcher or vice versa, however the information may not be useful if the prospective participants do not wish to join the study despite the good word of the previous participant I also sent an email to participants of wave 2 & 3 to invite their respective mentors and mentees to

participate in the study. I received three emails showing interest in the study two mentees and one mentor and I arranged the interviews in Feb 17. The interviews were conducted, transcribed, memoed complete with field notes by the end of Feb17 bringing the total of interviews to 20.

Table 7  
*Wave- 6 Interviews*

Participants	No. of Participants	Gender		Pair /Single	Interview mode
		Female	Male		
Mentor	6	Female-5	Male -1	Single-20	Face-to-face 19
Mentee	14	Female-13	Male -1	Pair- 0	Skype-1
Number of Interviews	20	Female-18	Male -2	Single	

*Wave 7- Interviews March 17-May 17.*

As there was no sampling frame or model to begin with, the study utilized all avenues available such as snowball sampling or volunteer sampling to gain maximum participants (Bloor, 2006). Noy (2008) has described snowball sampling as sampling strategy in which the study participants provide contact information of prospective participants. Snowball sampling is used to contact difficult-to-access or hidden populations, the researcher identifies participants who could give rich information and then ask them to suggest names and contacts further participation selection (Tracy, 2013). The target population for the study was professors and post docs, who are the elite group, and getting them to participate in the study was a challenging task. Although snowball sampling was used from the beginning, however, only one contact could be established due to snowball sampling.

The last wave of participation invites to mentors and mentees was sent in Feb 17 by independently sending invites to mentoring programs of universities in the states Niedersachsen and Berlin using Stratified Purposeful Sampling, Homogenous Sampling and Snowball Sampling. I asked participants of wave 4, 5, & 6 to invite their respective mentors and mentees to participate in the study and I also requested my Supervisor to help me in this regard. I received four emails showing interest in the study (3 female mentors and 1 female mentee). The interviews were conducted in March 17 and they were immediately transcribed, memoed and field notes were also written.

During the month of April, I was doing Focused Coding when I received an email from a mentor. He showed interest in the study because his mentee had recommended the study to him. I arranged a phone interview with him in May 17,

transcribed it, wrote memos and field notes bringing the total of interviews to 25 as seen in table below.

Table 8  
*Wave-7 Interviews*

Participants	No. of Participants	Gender		Pair /Single	Interview mode
		Female	Male		
Mentor	10	Female-8	Male -2	Single-23	Face-to-face 22
Mentee	15	Female-14	Male -1	Pair- 1	Skype-1
Number of Interviews	25	Female-22	Male -3		Phone-2

Initially, the plan for this study was to conduct 20-25 interviews, and out of these at least 12-15 should be mentees interviews and 8-10 should be mentor interviews. And if possible I should be doing 3 interviews per month so that I could transcribe and code the interview immediately using theoretical sampling to guide data collection. The plan was not followed as perceived but at the end the target of 25 interviews was achieved in the Data Collection Stage.

Out of these 25 interviews, I had only one pair and twenty-three single interviews, therefore, I decided to interview the mentor in the pair who contacted me at the end of Wave 7 as an independent interview due to lack of comparison and contrast opportunities with other pairs. The mentees and mentors who participated in the study can be seen in table below (pseudonyms are used for confidentiality issues):

Table 9  
*Participants Demographics*

Participants' Demographics				
Mentee Demographics				
Mentees	Gender	Age	Mentoring Ex. In Prog.	Job exp. as Post doc
Violet	Female	34	2	3
Joan	Female	29	1	2
Sandy	Female	33	1	-
Alex	Female	31	1	4
Tracy	Female	48	2	10
Rachel	Female	35	2	7
Kathy	Female	38	2	5
Brad	Male	36	3	3
Judith	Female	30	1	2
Michelle	Female	38	1.5	4
Courtney	Female	30	1.3	1.5
Sarah	Female	41	2	12
Ashley	Female	35	1	5
Crystal	Female	35	1	9
Patricia	Female	43	1.5	-
Mentor Demographics				
Mentors	Gender	Age	Mentoring Ex. in Prog.	Job Ex. as prof.
Verena	Female	33	1	2
Angie	Female	37	1	5
Jen	Female	35	2	3
Robert	Male	72	6	45
Carol	Female	56	6	20
Denise	Female	47	1	15
Amy	Female	42	1.5	5
Kimberly	Female	34	2	10
Linda	Female	48	2	6
Eric	Male	57	1	30

In short, an overview of the Data Collection and an overview of the whole data collection scheme can be seen below.

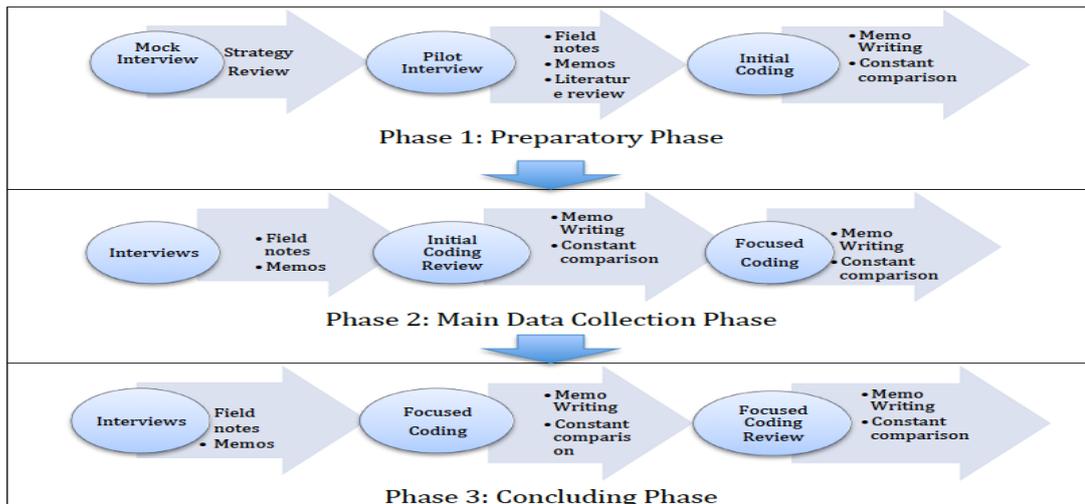


Figure 6. Data collection scheme

### 3.4.2 Data collection tools.

Rosenberg and Yates (2007) have stated that research questions dictate data collection methods. Since this was an inductive study I did not have research questions to begin with. However, I was clear that I wanted to know mentors and mentees perceptions of communication in mentoring, therefore, to have profound understanding of their point of view I decided to use semi-structured in-depth interviews, Memos and field notes as data collection tools.

#### 3.4.2.1 Semi-structured in-depth interviews.

Holstein and Gubrium (1997) have posited that when interviews are seen as meaning-making occasions then the focus is on “how meanings are constructed, the circumstances of construction and the meaningful linkages that are made for the occasion” (p.117). I wanted to make the interviews a meaning-making event so that I can understand mentors’ and mentees’ point of view. If I were to go and ask some specific predetermined questions I would have received answers but would that be a meaning making interview? I asked myself. Therefore, I decided to opt for semi-structured interview to give space to my interviewees to create their own meanings of communication in mentoring process.

Furthermore, Diccico-Bloom and Crabtree (2006) have elaborated that semi structured interviews consist of pre-selected set of open-ended questions with opportunity for questions to emerge from the interviewer /interviewee interaction. Initially, I had a list of ten topics that I wanted the interviewees to talk about, however later I changed the pattern. I short-listed the basic topics on my list but they were to be used sparingly so that the interviewee would get the chance to lead the conversation

(Dicicco-Bloom & Crabtree, 2006). I spent a good amount of time reading about interview guides and making my own, after a few intensive attempts I settled for an interview guide with five questions (see appx. V). I made two separate interview guides for mentors and mentees and these guides changed as the interviews proceeded because I was using theoretical sampling (Glaser, 1978), and needed to change the guide according to demand of the emerging themes.

Gill, Stewart, Treasure, and Chadwick (2008) have added that probing questions should be avoided as they may unduly influence the interviewees' responses. I actually asked many question based on what the interviewees were saying, however I made sure that my question should not make the interviewees uncomfortable. Dicicco-Bloom and Crabtree (2006) have argued that questions, which do not elicit required information should be removed and more pertinent question should be added. For me it was a balancing act I wanted to ask questions so that I would get deeper insight into the interviewees' thoughts, however deciding which questions to ask and which questions to leave at that precise moment was difficult.

In order to achieve this balance of asking questions from the interviewees speech and making sure that they feel at ease to talk I used multiple techniques. Gill et al. (2008) have posited that the interviewer should be competent in using interviewing skills such as listening, body language and strategic use of silence. I used these and other techniques such as reflecting on the interviewee's response, using probing remarks by asking their opinion and also by asking for clarification (Gill et al., 2008). During this process I had to give up a lot of question that I had in my mind but it was a fruitful sacrifice for me as the interviews became much more productive than I thought (Dicicco-Bloom & Crabtree, 2006).

Gill et al. (2008) have elaborated that interviews should be tape recorded and transcribed verbatim afterwards as this protects against bias and provides permanent record of what was said and was not said. I transcribed the interviews as soon as possible so that what was said in the interviews was captured in its true essence. During and right after the interviews I jot down the field notes basically "observations, thoughts and ideas about the interview" so that during data analysis nothing would go amiss that may enhance my understanding of mentors' and mentees' perceptions (Gill et al., 2008, p. 293).

Holstein and Gubrium (1997) have suggested that interview conversation could be “potential source of bias, error, misunderstanding or misdirection” and this could be corrected by asking the appropriate questions (p.113). I was conscious of the fact that bias and misrepresentation of the ideas could affect the result of my study. Therefore, I made sure that my questions, my demeanour and my tone none of them would lead the participants to respond in a certain direction. The selection of semi-structured in-depth interviews, careful selection of questions and use of interviewing techniques they were all for one purpose only that is to present mentors’ and mentees’ point of view without any contamination.

#### ***3.4.2.2 Memos and Field notes.***

The main data collection tool in this study was the semi-structured in-depth interviews and to compliment them I was constantly writing memos and field notes, which served as data when I was doing analysis. I wrote the field note the same day to capture all details from what mentors and mentees were saying, to how they were behaving. I also wrote the description of interview sites where I asked them to join me for interview and a cup of coffee, which was usually a café or an office as per mentors or mentees choice.

Furthermore, I wrote detailed memos through out the data collection and analysis process. In GT, Glaser (1978), Straus and Corbin (1990), and Charmaz (2014), all emphasis on the importance of writing detailed and conceptual memos. Glaser (1978) has stated, “*Memos are the theorising write-up of ideas about codes and their relationships as they strike the analyst while coding*”(83; italicised as in original text). I found writing memos extremely helpful in moving forward as Charmaz (2014) has elaborated, “memo-writing constitutes a crucial method in grounded theory because it prompts you to analyse your data and codes early in the research process”(162). Initially, I wrote simple memos jotting down ideas and my thoughts about them, however, as the research progressed the memos became as complex as the analysis stage with contrasting and comparing, and conceptualising to further the developing theory (examples of memos can be seen in Ch. 4 and 5). Hence, I used them as an integral source of data along with interview transcripts.

### 3.5 Evaluating Qualitative Research

Qualitative researchers accept that every subject is unique and their perspective of different situations would be diverse due to their backgrounds, knowledge, and past experiences, which allows qualitative researchers to show nuances of those experiences based on a collective data of different experiences. Evaluating such nuance of human experiences is not possible; however, evaluating the process of research is possible and expected. Lincoln (1985) has outlined criteria for assessing the trustworthiness of qualitative research (credibility, transferability, dependability and confirmability). However, in order to maintain the quality of this research I decided to follow Charmaz's (2014) criteria for grounded theory, that is, Credibility, Originality, Resonance and Usefulness.

#### 3.5.1 Credibility.

Charmaz (2014) has shared six questions to established credibility of the GT research and I regularly checked for credibility of my research. For instance, I made sure the numbers of participants were 25 by constantly sending invites using multiple sampling techniques, so that I had wide range of experiences and I included both mentors and mentees. Charmaz (2014) has stated 10-12 participants for a single researcher study were a good number of participants, however, I focused on getting a large number such as 25 participants because in this study data collection options were limited due to hard to reach population. I was unable to get mentor-mentee pairs to interview or observe hence I could not use triangulation for credibility. Therefore, I decided to opt treating my participants as cases and doing in-depth interviews. Furthermore, I included male participants in the research to get voices of all genders and also of participants of different ages and with different goals. I compared and contrasted their situations and responses to enhance the analysis. And I used extensive memoing to create logical links between the data and the emerging theory. The results in this study were based on multiple cases supporting each emerging category, thus, plausible and worthy of confidence, and strengthening the theory.

#### 3.5.2 Originality.

To established originality, Charmaz (2014) has suggested four guiding questions that I adopted for this research. I made sure that the codes originated from the data and the emerging categories were not just simple representation of obvious

facts rather they were unique based on the information in codes supporting these categories. As focusing on their uniqueness would lead to theory which is original and authentic. I also constantly asked how is my work unique and how does it contributes to the literature on mentoring.

### **3.5.3 Resonance.**

Who would resonate with the theory I have developed? I asked such questions along with Charmaz (2014) four questions on resonance. I found that going through these questions helped me in keeping the theory grounded to reality, as it would impact everyday people. I achieved this by creating links between data, which represented the individuals, and the emerging theory. Creating these links explains the fine details of individual experiences what has been missing and what needed to be explained.

### **3.5.4 Usefulness**

The last evaluation measure for this research was usefulness and Charmaz's (2014) five questions. The most important question for me was the usefulness of this research in everyday lives of people. I constantly worked towards making this research valuable by making sure it is useful in real life. This research would be a useful tool for mentees, mentors and mentoring programs irrespective of their field. Thus, I regularly checked the quality of this research by asking these questions on Credibility, Originality, Resonance and Usefulness.

## **3.6 Ethical Issues**

I made sure two main ethical issues; confidentiality and consent were addressed to ensure participants' safety and research credibility.

### **3.6.1 Confidentiality.**

The research participants were assured of their privacy from the onset of the study. I contacted them through Forum Mentoring via a participation invite (see appx. III), which clearly stated that; I would use pseudonyms for them, only the researcher would have access to data and it would be destroyed in five years, and the participants have the final say in publication of the data provided by their interview. I further made sure that during interview recording the participants' given names,

location, specifics about intuitions policies are not mentioned to protect the participants.

### **3.6.2 Consent.**

The participants were asked to sign a consent form (see appx. IV) before the interview, which repeated the confidentiality information from the participation invite to reinforce the importance of participant privacy and safety. Both researcher and participants signed the consent forms and both received a copy for safekeeping.

### **3.7 Conclusion**

In short, the quest to explore communication in mentoring was a complex process in which I used qualitative research methodology to provide maximum opportunity for exhausting the topic. In this chapter, I have discussed in detailed the research methodology adopted in this research. I have explained the research paradigm with in which this research was conducted. Then, I discussed in detail the research design with focus on data collection and tools, and in the end I talk about evaluation of the research and ethical issues.

## Chapter 4- Analysis and Findings

### 4.1 Introduction

In this chapter, I will present the tri-tier analysis I conducted to understand communication in mentoring and I conclude the chapter with findings of the analysis. I have divided this chapter in four sections based on the tri-tier analysis procedure I applied in this study and I will discuss how the data (interviews transcripts and memos) was analysed. I will begin with methodology of analysis, then in the first section, I will discuss in detail Initial Coding analysis and findings, in second section I will elaborate on Focused Coding analysis and findings, in third section I will talk about Theoretical Coding analysis and present a visual depiction of theory emerging from the data, and in fourth section I will present findings and explain theory development in light of findings, followed by summary of the chapter.

### 4.2 Methodology of Analysis

As explained in Ch-3, I used GT in this research because the topic I wanted to explore might not be fully explored without the flexibility and depth afforded to me as a researcher by GT. The topic communication in mentoring required that I went into this research with an open mind without assumptions clouding my judgement, and GT with its focus on theory emerging from the data made sure that I as a researcher work within this boundary. Furthermore, GT required memoing and constant comparison, which ensure that the theory was emerging from the data due to researcher's continual interaction with data. This continuous interaction with data was made possible with help of NVivo software I was using (as explained earlier in Ch-3) to create codes, concepts, and categories leading towards emerging themes.

Furthermore, since I was following Charmaz's (2014) GT, I decided to follow her lead in coding scheme as well. Charmaz (2014) suggests using Initial Coding, Focused Coding and Theoretical Coding, and this study followed the same coding scheme to analyse the data. Charmaz (2014), similar to Glaser and Straus (1967), and Straus and Corbin (1990), stressed on the importance of memo writing and constant comparison; therefore, I also used memo-writing and constant comparison as basic tenets of analysis in this study. I will now discuss in detail how each step of analysis was completed.

## Section- 1

### 4.3 Initial Coding

At the end of May 2016 I had two transcribed pilot interviews and I started Initial Coding. Charmaz (2014) has stated, “during Initial Coding, the goal is to remain open to all possible theoretical directions indicated by your readings of the data”(p.114). I was determined to remain open to all the possibilities arising from the data which was fortunately from a mentor and mentee, though they were not a pair yet they provided information vital to the study. I achieved this goal of being open to all possibilities by keeping in mind the questions Charmaz (2014, p.116) has suggested researchers ask while doing Initial Coding:

- What is this data a study of? (Glaser, 1978,p.57; Glaser & Strauss, 1967)
- What do the data suggest? Pronounce? Leave unsaid?
- From whose point of view? What theoretical category does this datum indicate? (Glaser, 1978)

These questions kept me focused on the data and also helped with aspects of credibility and originality since they enabled me to ensure that themes emerged from the data.

### 4.4 Initial Coding Procedure and Analysis

I will now describe in detail the Initial Coding procedure I adopted in this study. I conducted Initial Coding in two stages; namely, Line-by-Line Coding with memoing and Developing Concepts with memoing. The Initial Coding comprised initial data from first two interviews conducted in May 2016, a mentor and a mentee interview. Both interview transcripts were coded and memoed independent of each other, as the data from mentees and mentors would be treated as two separate data sets.

I started a project called ‘Communication in Mentoring’; the topic I wanted to explore in NVivo software. Once I imported the first two interview transcripts into NVivo and started reading the first interview, I soon realized that not all lines were meaningful, some of them were mere filler words or half sentences, so I decided to redefine a line for this thesis (Charmaz, 2014). After going through the first transcript I defined a line/sentence in this study as, a line is when the meaning of what is being

said is complete and it may comprise a line or a few lines. Once I had defined a line, I focused on how to code the lines. Charmaz (2014) has suggested keeping Initial Coding simple; therefore, I decided to keep it simple by coding lines either in-vivo or by using gerunds. And to ensure credibility of the developed codes I divided the coding process in two stages I will now give detail account of Initial Coding process, and a brief overview of the Initial Coding process is below:

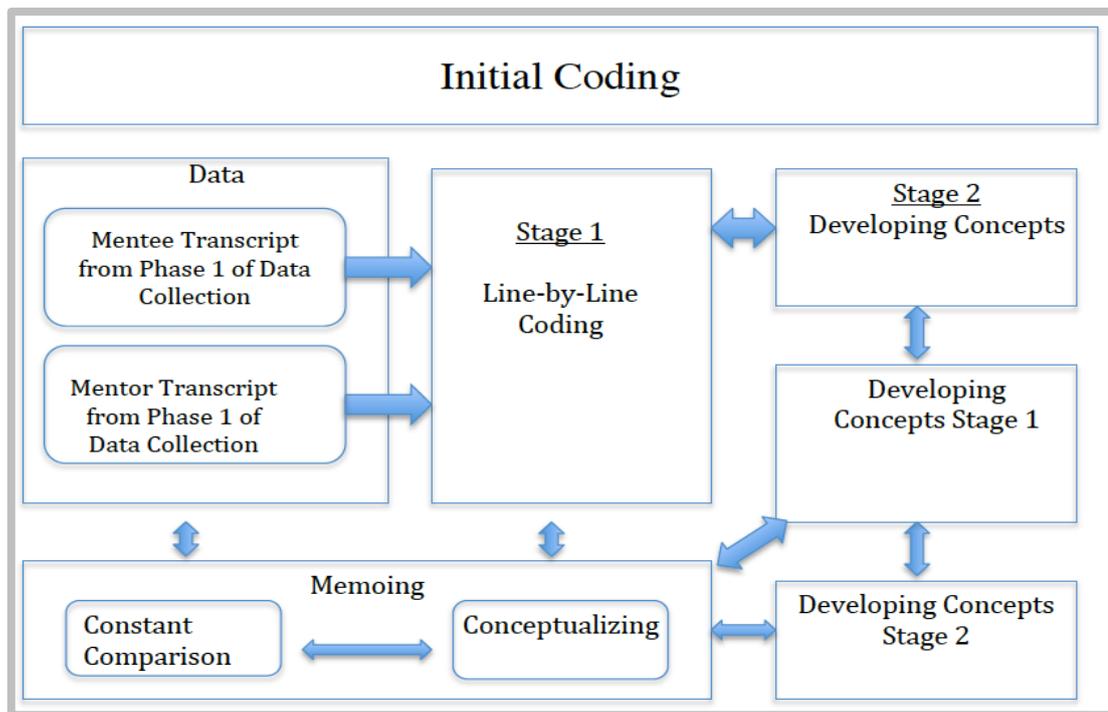


Figure 7. Initial Coding procedure in communication in mentoring study

**4.4.1 Initial Coding- Stage 1-Line-by-Line Coding.**

The Initial Coding- Stage 1- Line-by-Line Coding was completed in two steps:

1. Line-by-Line Coding- Mentee
2. Line-by-Line Coding- Mentor

*Line-by-Line Coding-Mentee.*

In the Line-by-Line coding of the mentee transcript, I read the mentee’s response in the transcript and asked myself, what action I see here? What is the participant saying/doing? What does it reflect? For instance, I coded the following line [from NVivo] as:

Table 10

*Initial Line-by-Line Coding Mentee Transcript*

Data	Line-by-Line Coding
Because I could decide or choose the mentor, I wanted, um, I could so I went through the CVs of different professors and check which one is the most interesting for me and which one is did or went the same way I think I can go and then discuss the things. [Transcript: Violet 28.04.2016, line-78]	Choosing mentor

In the lines above, I saw her thinking about her mentor, who he/she should be? Based on certain criteria that she had such as the CV and research work of the mentor. I saw her as conscious of importance of the task and she was going about it in a systematic way. Another example of Line-by Line coding is:

Table 11  
*Initial Line-by-Line Coding Mentee Transcript 2*

Data	Line-by-Line Coding
No, I really prepared all, umm, three meetings, I prepared myself with questions before I went there. [Transcript: Violet 28.04.2016, line-290]	Preparing for the meeting

In this example as well, the response of mentee reflected what she was doing, that is, being prepared, therefore, I coded it preparing for the meeting. I coded the whole transcript asking myself what do I see here? Am I seeing an action? And what does it mean what will the mentee gain by this action and if mentee is giving a description what is actually being described and why? Some of the codes were developed instantaneously, I asked a question and suddenly I knew what I wanted to code it because the action was apparent in the lines as in the line above where she talks about preparing for the meeting. Furthermore, I was open to recoding or renaming any code, as I believe that a second and a third look with a fresh mind would always suggests new insights.

#### *Line-by-Line Coding- Mentor.*

The Line-by-Line Coding of the mentor interview was completed in the same manner as the first interview. I read the response and asked the relevant questions, what action I see here? What is the participant saying/doing? What does it reflect? And then I coded the lines according to the information presented in the lines. For instance,

Table 12  
*Initial Line-by-Line Coding Mentor Transcript*

Data	Line-by-Line Coding
they don't know what other groups are doing but as we are not everybody in the same discipline... and each discipline has also its own ways of dealing with career choice with proposals, um, how working groups are set up together if they have lot of post docs or not, or if they have just small groups or large groups. [Transcript: Verena 12.05.2016, line-329]	Acknowledging limitation due to mentee diversity

In the line above, the mentor was talking about limitations she faced as a mentor while giving advise to her mentees due to diversity in their fields of work. The action reflected in the line above is her acknowledging the difficulties that may

arise due to mentee diversity; therefore, I coded it as ‘Acknowledging limitation due to mentee diversity.’ Similarly, in the line below:

Table 13  
*Initial Line-by-Line Coding Mentor Transcript 2*

Data	Line-by-Line Coding
I hope that I can give them advise and suggestion that have not thought before that they have not thought about it before so that I’m that I’m helpful I am valuable that my my advise are valuable for them so I am not just a nice friendly waste of time but that they think that they can profit from the meeting that is always that’s my hope. [Transcript: Verena 12.05.2016, line-517]	Expectations from self as mentor

The mentor was talking about value of her advice to her mentees and what she was expecting from herself as a mentor. I coded the line as ‘Expectations from self as mentor’ as the line reflects that to the mentor giving advice was an important task and it must be accomplished with utmost honesty to make it valuable for the mentee and not “a nice friendly waste of time”. Also, I coded some lines in-vivo as it was said by the mentee. As in the line below:

Table 14  
*Initial Line-by-Line Coding Mentor Transcript 3*

Data	Line-by-Line Coding
umm I mean its its important for everybody that somebody does not have to repeat all the time what is going on in their lives so that I may be I just write the note that I can give the also the feeling that I’m I’m listening I’m caring about them. [Transcript: Verena 12.05.2016, line-257]	I’m listening, I’m caring

#### ***4.4.1.1 Memo writing for Line-by-Line Coding.***

At the initial Line-by-Line coding stage, with the mentee and mentor transcripts, I was memoing about the data I was coding and why I decided to code a specific line in the data as I did? For instance, as I was coding the mentor transcript and came across the lines about expectations so I coded them as ‘Expectation of the mentor from self’ as discussed earlier and I memoed it as follows:

Table 15  
*Memo Expectations from self*

Memo- 20.05.2016 Code: Expectations from self She has high expectations from herself as a mentor. She said she does not want to be ‘a nice friendly waste of time’ that means to her job as a mentor a serious work and she must be honest with her work and give her mentee an advise that the mentee would cherish as a useful piece of information not something that she (the mentee) could think of herself. [Memo of Transcript: Verena 12.05.2016, line-517]
--

#### 4.4.1.2 Constant Comparison in Line-by-Line Coding.

The memos became most interesting when I started comparing codes from mentor transcript to mentee transcript using constant comparison technique. The constant comparison technique allows researcher to compare and contrast data, which helps in each level of analytic work (Glaser, 1967; Charmaz, 2014). For instance, in the lines below both mentor and mentee talk about mentor's honesty.

Table 16  
*Constant Comparison Mentor's Honesty*

Data	Line-by-Line Coding
he was a kind of young professor and um..and open and friendly and really he talked umm very honestly to me and ya this was [Transcript: Violet 28.04.2016, line-125]	Being Honest
and sometimes I say I don know what I would do in that situation so but its hard to say I don't know as a mentor when you have five mentees sitting there and kind of waiting waiting for solution that's not --that's not easy to take and to stop after the point I don know and then-- [Transcript: Verena 12.05.2016, line-530]  because everybody is expecting something from you as a professor or as a leader here in the department you have always to make decisions and to have a good idea on-- but sometimes you just don't know what to do and that's not easy to say in such a mentee situation [Transcript: Verena 12.05.2016, line-531]	Being Honest

When I wrote the memo about 'Being Honest' based on the code in the mentee transcript [Violet 28.04.2016] it was a memo about what I understood about the mentee's concept of valuable advise which is based on mentor's honesty, see memo below:

Table 17  
*Memo Being Honest*

Memo-5.05.2016 Code: Being Honest Violet while talking about her mentor states his qualities as 'open and friendly' but with open and friendly she also mentions that 'he talked very honestly to me' with her and his honest advise was valuable to her. Not only a mentee want an open and friendly mentor but also one who is honest to speak what she needs to progress in her career as a successful scientist. So from her point of view a mentor's advise should be honest so I coded this line as 'being honest.' [Memo of Transcript: Violet 28.04.2016, line-125]
--

However, when I was writing a memo about the mentor's honesty based on the lines in mentor transcript [Verena 12.05.2016] I rationalized that the mentor was being honest with her mentee and it was a good quality in her. And then I compared it (see the memo below) to what the mentee [Violet 28.04.2016] had said in her interview about the quality of a mentor that they give honest advice, and this honesty

on the mentor part whether about themselves or about the mentee’s help create a positive environment for the mentoring process. This comparison of the codes in the two data sets let me to think about the role of mentor’s conduct in the success of mentoring process.

Table 18  
*Constant Comparison Being Honest*

<p>Memo-22.05.2016 Code: Being Honest While talking about the pressure on a mentor she said, ‘and sometimes I say I don know what I would do in that situation so, but it’s hard to say I don’t know as a mentor.’ And then in the next line she talks about the pressure on a professor and she said, ‘but sometimes you just don’t know what to do and that’s not easy to say.’ In both lines she was honest and she admitted to me that if she came across a situation that she cant respond to she acknowledges the fact she does not try to lie to her mentee and accepts her limitation. I think this honesty would make her advise valuable to her mentees because by accepting that she does not know she is sending the message that she is a human as they are and she does not have to have all the answers all that time. If I look back the mentee interview also had a code about the honesty of her mentor and she said that for her the mentors honesty was valuable. So basically when the mentors are honest about their own limitations or about the limitations of their mentees they are actually building the relationship, which is strong and healthy. In this relationship both are accepting their flaws and want to learn to be better scientists. [Constant Comparison-Transcript: Verena 12.05.2016, line-531 &amp; Memo of Transcript: Violet 28.04.2016, line-125]</p>
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**4.4.1.3 Reviewing the codes.**

Charmaz (2014) has stated initial codes are provisional and the researcher has the flexibility to add new codes and to rename old code. I used this flexibility to check my coding for credibility as well as authenticity. Therefore, once Line-by-Line Coding in the Stage-1 of Initial Coding of both interviews was complete, I reviewed all the codes of both interviews. This time I was looking for new information in each coded line, for instance:

Table 19  
*Reviewing Codes*

Data	Line-by-Line Coding
<p>because I could decide or choose the mentor I wanted um I could so I went through the CVs of different professors and check which one is the most interesting for me and which one is did or went the same way I think I can go and then discuss the things [Transcript: Violet 28.04.2016, line-78]</p>	Choosing mentor
	Exercising freedom of choice

In the data presented above when I first coded the line I labelled it as ‘Choosing mentor’ because the mentee was going through the process of choosing her mentor by looking at the professors’ CVs. However, later when I re-read the lines I observed that she was exercising her right to choose the mentor that she believed would be best for her. Therefore, I coded the same line under another label

‘Exercising freedom of choice’. Instead of renaming the code I added a new code because in Initial Coding it is early to say what code is redundant.

Similarly, one of the initial codes in the mentee transcript was ‘Protecting.’ The line associated to it reflected the mentee trying to select an anonymous mentor to avoid repercussions of sharing university related information. However, when I re-read the line I coded it as ‘Self preservation.’ Although her action spoke of her desire to protect herself but code ‘Self-preservation’ better reflected her efforts, as discussed in the memo below:

Table 20  
*Reviewing Codes Self preservation*

Data	Line-by-Line Coding
So one was um to have this mentor which is not part of the own university So its really someone nobody knows so I didn't know before and other people didn't know before Umm that why that's really something personal So that that I'm-- can speak openly and don't have to ya think about any political things behind [Transcript: Violet 28.04.2016, line-56]	<del>Protecting</del>
	Self preservation

Table 21  
*Memo Protecting*

Memo- 08.05.2016: Code: Protecting The mentee wants a mentor who is not from her university to be safe from any untoward happening if her comments come back to her group/ supervisor. She wants to protect herself, which is a perfectly sensible action by her. And by selecting a mentor in this way she would feel free to trust her mentor and talk to the mentor and seek advise about any topic. So I code this line as ‘Protecting.’ [Memo of Transcript: Violet 28.04.2016, line-56]
--

Table 22  
*Memo Self preservation*

Memo- 26.05.2016: Code: <del>Protecting</del> / Self preservation Earlier, I coded this line as ‘Protecting’ but now I think I want to code it as ‘Self preservation.’ The word ‘Protecting’ explains her action that she is trying to keep herself safe from any untoward happening as I discussed in Mmeo-08.05.2016. Self-preservation in Merriam Webster dictionary is defined as “preservation of oneself from destruction or harm” and “a natural or instinctive tendency to act so as to preserve one’s own existence.” <sup>9</sup> I wanted to code the lines as ‘Self preservation’ because the mentee was trying to preserve her existence in the scientific community by being careful in mentor selection so it was a long-term goal for her; therefore the word ‘Self preservation’ appears to be more appropriate here. [Memo of Transcript: Violet 28.04.2016, line-56]
--

At the end of Initial Coding, at my second supervisor’s suggestion, I performed a credibility check of my coding process. First, I asked a focused group of

<sup>9</sup> <https://www.merriam-webster.com/dictionary/self-preservation> as seen on 26 May, 2016

four colleagues, who were all PhD students, to comment on my coding process, and later I asked my supervisors for expert opinions. Both sets agreed with my coding process, which encouraged me to move to my second stage, Developing Concepts.

#### 4.4.2 Initial Coding- Stage 2- Developing Concepts.

Charmaz (2014) has elaborated that in Initial Coding a researcher goes through the codes to look for analytic ideas to pursue further in the research and mould data collection accordingly. I decided to call this gathering of analytic ideas the developing concepts stage to organise my data. Thus, the second stage of the Initial Coding was Developing Concepts from the codes developed in Line-by-Line coding.

##### 4.4.2.1 Procedure of Developing Concepts.

‘Concept’ is defined in Merriam Webster Dictionary as “an abstract or generic idea generalised from particular instances.”<sup>10</sup> For developing concepts arising from the data I looked at each code, one at a time, and asked what was it referring to? For instance, the first code in the mentee [Violet 28.04.2016] initial Line-by-Line coding was ‘Accepting mentor’s advice’ it was the first code because it was starting with a capital A and in NVivo software all codes are arranged according to the alphabetical order. I looked at this code and asked what it was about in the following memo:

Table 23

##### *Developing Concepts*

Memo- 05.06.2016:  
 Concept: Practical advice  
 I read the lines, and the first thought that came to my mind was what does accepting mentor’s advice means to a mentee? And why would a mentee want to accept and follow a mentor’s advice? As a mentee I would accept and follow a piece of advice only if I know it would be beneficial for my career. And it is a doable thing for me; that is, it is good, solid, practical advice.  
 Since I know that there are multiple codes that are advices and suggestions so to make sense of the data I am going to organize all the codes about suggestions and advise given by the mentor under a concept called Practical advice.  
 [Memo of Transcript: Violet 28.04.2016]

Therefore, the first concept I developed was Practical advise by asking myself why would I accept a mentor’s advice and the answer to myself was because it would be practical advice, sound advice, and genuine advice. I decided to use ‘Practical advice’ as a concept then I added a new code to NVivo codes named it ‘Practical advice’ and moved ‘Accepting mentor’s advice’ under it as a child node.

<sup>10</sup> <https://www.merriam-webster.com/dictionary/concept> as seen on 01 June, 2016

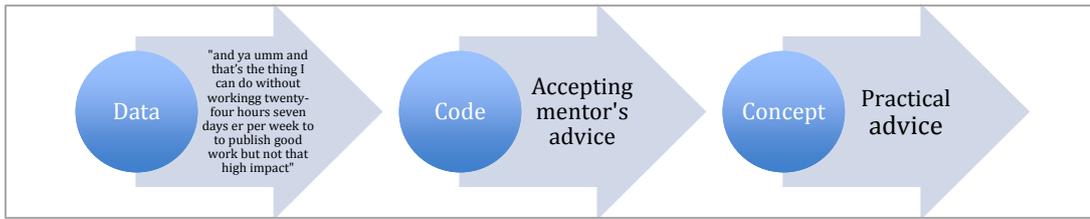


Figure 8. Developing concepts in communication in mentoring study

Table 24

*Developing Concept Practical advice*

Data	Code	Concept
and ya umm and that's the thing I can do without workingg twenty-four hours seven days er per week to to publish good work but not that high impact [Transcript: Violet 28.04.2016, line-361]	Accepting mentor's advice	Practical advice

In the context of mentoring practical advice from mentor seemed like a plausible concept. To verify its validity I waited for more codes to fall under this concept so if I do not get more codes under this concept I would know that it does not fit the criteria to be a concept. For instance, when I read the code ‘conducting informed inquiry’ and the lines associated with it I asked myself what do I see here? What is the mentee doing here when s/he is conducting informed inquiry? Why would I conduct informed inquiry about my mentor? And my answer was to make sure that I am selecting the right person so that I do not waste my time and this is a profitable exercise for me. Basically it would be my strategy to get most out of mentoring by conducting informed inquiry about the mentor before rather than after the selection is made and I am not happy with the mentor. Therefore, I added a node called ‘Strategy used by Mentees’ and made ‘conducting informed inquiry’ a child node under it. As the coding progressed I found many other codes that could be a child node of ‘Strategy used by Mentees’ so added them all to the concept ‘Strategy used by Mentees’, which reflected that it is a concept worth exploring in mentoring.

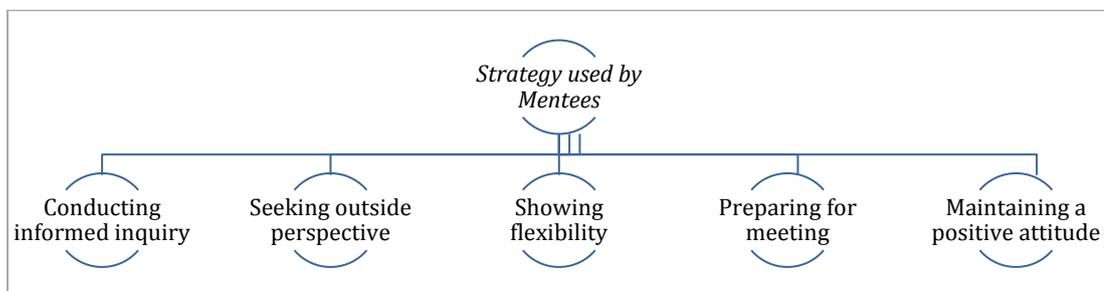


Figure 9. Developing concepts strategy used by mentees

Conducting informed inquiry, seeking outside perspective, showing flexibility, preparing for meeting, maintaining a positive attitude were just a few codes that were child nodes of ‘Strategy used by mentees’.

Table 25

*Initial Concepts Strategy used by mentees*

Initial concepts mentee interview Concept: Strategy used by mentees [Transcript: Violet 28.04.2016-till June]	
explaining one to one meeting benefit	they have the role to um structure
elaborating effects of gender difference	seeking outside perspective
exercising freedom of choice	self preservation
conducting informed inquiry	increasing network
writing notes of meeting	maintaining a positive attitude
describing Luck	strategically selecting mentor
mentee taking charge	mentees expectations
expectations from mentees	shortage of female professors
making mentees responsible	showing flexibility
mentees should take charge of their learning	preparing for the meeting

During developing concepts from codes the concepts were used as generic umbrella terms to organize data into manageable portions. Many worth exploring concepts emerged from the data, for example, priorities of mentors, practical advice, attributes of mentees, etc. The initials concepts that emerged from data of mentee transcript were as follows:

Table 26

*Initial Concepts Mentee*

Initial concepts-Mentee [Transcript: Violet 28.04.2016-till June]		
Strategy used by mentee	<i>Attributes of mentors</i>	<i>Mechanics</i>
Priorities of mentees	<i>Behaviour of mentor</i>	<i>Benefits of mentoring</i>
Rapport of mentees	<i>Support by mentor</i>	<i>Practical advice</i>
		<i>Motivation</i>

**4.4.2.2 Memoing and Constant Comparison in Developing Concept stage.**

While developing concepts for the mentor transcript I used some of the concepts (shown above in italics) that had emerged from the mentee data as they were emerging in the mentor data as well as discussed in the memo below:

Table 27  
*Memo Developing Concept Mentor Transcript*

Memo- 15.06.2016 Developing Concepts- Mentor transcript Developing concepts for mentor transcript was in a way a continuous exercise of constant comparison. I looked at a code and asked what it would be referring to and do I have similar code in mentee data. For instance, when I read the code ‘step-by-step guidance’ I knew that in the mentee data I had developed a concept that deals with mentor’s advice. Therefore, I went back to mentee data and looked at the concepts, and I knew that ‘step-by-step guidance’ could be a child node of the concept ‘Practical advice’.		
Data	Code	Concept
aand umm ya we just went through the the application and which points I have to strengthen and he--I I think I send him the the proposal before I went there and he had a look on it which parts I have to change or which I have to ya rewrite things like that so he really gave um umm. umm umm to say...soo not not just.....[not]{20 mins.} [Memo of Transcript: Violet 28.04.2016, line-298]	Giving targeted advise	Practical advice
ok we can skip that or we can delete that completely and she left the meeting with a good feeling that I am not pushing her too much that you should do everything. [Memo of Transcript: Verena 12.05.2016, line-464]	Step-by-step guidance	Practical advice
Similarly, I borrowed many other concepts that emerged in mentee data but were also appropriate for mentor data.		

In the mentor data, the concepts that emerged from the data and the ones that were borrowed from the mentee data are (in italics) presented in the table below:

Table 28  
*Initial Concepts Mentor*

Initial Concepts-Mentor [Transcript: Verena 12.05.2016-till June]	
Attributes of mentees	Strategy used by mentee
<i>Attributes of mentors</i>	<i>Mechanics</i>
<i>Behaviour of mentor</i>	<i>Benefits of mentoring</i>
Respect for mentor	<i>Practical advice</i>
<i>Support by mentor</i>	<i>Motivation</i>

The Initial Coding process could be seen in one glance in the table below:

Table 29  
*Initial Coding Process*

Initial Coding		
Data	Stage 1-Line-by-Line Coding	
Transcript Mentee Interview	-Define line -Give a code to each line based on what is happening in that line -Review codes	Memoing -Conceptualizing -Constant comparison
Stage 2 -Developing Concepts		
Transcript Mentor Interview	-Find a common core of a cluster of codes -Label the cluster of codes as a concept -Review codes in a concept whether they belong together or not	Memoing -Conceptualizing -Constant comparison

#### **4.4.3 Initial Coding analytic findings and research questions.**

At the end of Initial Coding, after analysing the interview transcripts with memoing and constant comparison, I found that mentors and mentees were talking about a number of different things, which were organised under major concepts emerging from the data. Out of these concepts the most talked concepts were the ones related to mentors and mentees that is their attributes, conduct, and strategy which impacts communication in the mentoring relationships. I also found other concepts related to different aspects, such as managing mentoring meetings and topics of discussions, etc., of mentoring relationships also influenced communication in mentoring relationship. At the end of initial analysis four research questions arose that helped during Focused Coding:

1. What personal and professional skills should mentors and mentees have for effective communication in mentoring?
2. What is the role of mentors in making communication in mentoring a success?
3. What is the role of mentees in making communication in mentoring a success?
4. What factors influence communication in mentoring relationship?

#### **4.4.4 Summary**

In this section, I discussed in detail the procedure I adopted for conducting Initial Coding accompanied with analysis using memoing and constant comparison method. I first conducted Line-by-Line coding and then revised it to ensure credibility of coding process. Once I had a vast quantity of initial codes I organised them in developing concepts stage. Once the initial concepts were developed, I had a list of initial concepts and four questions to guide the next analysis; thus, I closed the Initial Coding stage to move on to the next stage of analysis, namely, Focused Coding.

## **Section- 2**

### **4.5 Focused Coding**

Charmaz (2014) has posited in Focused Coding the researcher should focus on most prominent or frequently used codes to analysis large amount of data. In the Initial Coding I used developing concepts to organise data in a way that allowed me to sift through data not only on basic code level but also on concept level. The difference was that in Focused Coding I started looking for concepts in large set of

data and kept strengthening these concepts by adding codes to these concepts. And once I had strengthened concepts grounded in data I organised them under categories that were most relevant to them. An overview of the Focused Coding process I employed can be seen below:

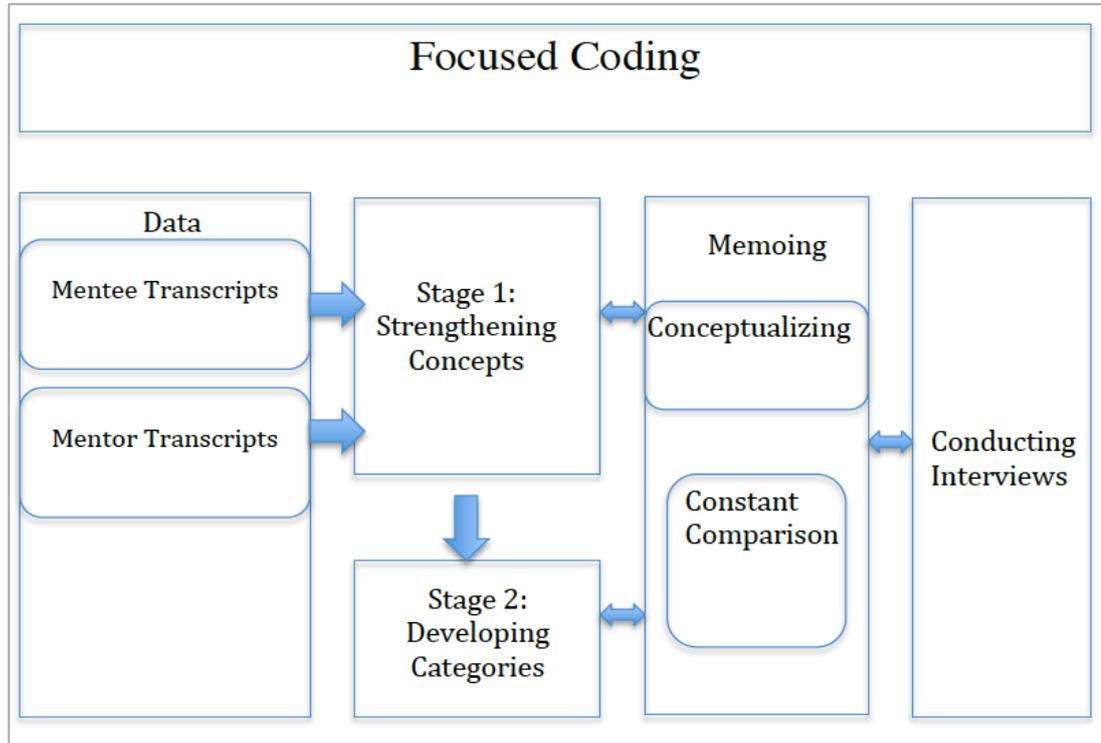


Figure 10. Focused Coding in communication in mentoring study

#### 4.6 Focused Coding Procedure and Analysis

I started the Focused Coding process when I was still in Data Collection Phase 3 conducting interviews. I was aware that Focused Coding was important because it takes the research process towards theoretical direction that lead to emerging theory (Charmaz, 2014). Therefore, keeping in mind its importance I designed to complete Focused Coding accompanied with memoing in two stages, namely:

1. Stage 1- Strengthening Concepts
2. Stage 2- Developing Categories

##### 4.6.1 Stage 1- Strengthening Concepts

The Stage 1- Strengthening Concepts was completed in two steps:

1. Initial Strengthening Concepts
2. Revised Strengthening Concepts

#### ***4.6.1.1 Initial strengthening concepts***

In the Strengthening Concepts stage, I further explored the concepts developed in the Developing Concepts stage. In the Developing Concepts stage I used a mentor and a mentee interview transcript as data. However, in the Strengthening Concepts stage I used a total of twenty-five interview transcripts- fifteen mentee interview transcripts and ten mentor interview transcripts-as data. Moreover, at this stage I had four research questions so keeping them in mind I focused on concepts pertaining directly to mentors and mentees as my initial focus and later moving to other concepts. It is important to mention that I did not go about locating answers for each questions because that would have restricted the emergence of themes, hence I used these questions as guides that allowed me to organise the emerging themes. I used the twenty-five interview transcripts, memos and constant comparison guided by the research questions; I proceeded with Initial Strengthening Concepts stage, which comprised three steps:

1. Developing Strengthening Concepts Framework
2. Initial Strengthening Concepts- Mentee
3. Initial Strengthening Concepts- Mentor & Mentee

##### *Developing Strengthening Concepts Framework.*

In the stage, Developing Concepts I coded the mentee transcript and the mentor transcript separately to observe the emerging concepts. The framework of concepts emerging in the Developing Concepts stage provided a solid base for Strengthening Concept stage. Therefore, at the beginning of Initial Strengthening Concepts stage I merged the concepts developed in the Developing Concept stage from both mentor and mentee data into a single coding framework as seen in table below.

Table 30  
*Strengthening Concept Framework*

Revised Concepts Mentee	Revised Concepts Mentor	Strengthening Concepts Framework
Attributes of Mentees	Attributes of Mentees	Attributes of Mentees
Strategy used by Mentees	Strategy used by Mentees	Strategy used by Mentees
Conduct of Mentees	Conduct of Mentees	Conduct of Mentees
Attributes of Mentors	Attributes of Mentors	Attributes of Mentors
Strategy used by Mentors	Strategy used by Mentors	Strategy used by Mentors
Conduct of Mentors	Conduct of Mentors	Conduct of Mentors
Meeting Frequency	Meeting frequency	Meeting Frequency
Meeting designs	Meeting designs	Meeting designs
Publishing	Publications	Publications
Practical advice	Practical advice	Practical advice
Networking	Networking	Networking
Appointments	Motivation	Appointments
Grant applications	Benefits	Grant applications
Projects	Influences	Projects
	Mentoring	Motivation
	Mentoring program	Benefits
	Topics	Influences
		Mentoring
		Mentoring program
		Topics

*Initial Strengthening Concepts- Mentee.*

I coded the interviews, in the stage Initial Strengthening Concepts, using the same process I used in the Initial Coding. I started the Initial Strengthening Concepts stage with fifteen mentee interviews. I used mentee interviews first because at the end of Phase 2 of Data Collection, I had conducted and transcribed most of the mentee interviews. I coded them to the Strengthening Concepts framework (see table above). During the coding process many new codes also emerged and I added them to appropriate concepts. For instance, in the table below two new codes were added to the concept Attributes of Mentees, namely, Confident and Ideal mentee, in the Initial Strengthening Concepts stage.

Table 31  
*Initial Strengthening Concepts*

<u>Revised Concepts</u> (with codes)	<u>Revised Concepts</u> References in Codes	<u>Initial Strengthening</u> <u>Concepts</u> (with codes)	<u>Initial Strengthening</u> <u>Concepts</u> References in Codes
<b>Attributes of Mentees</b>		<b>Attributes of Mentees</b>	
Active	1	Active	10
Adaptive	1	Adaptive	3
Open minded	1	Open minded	12
Positive thinking	1	Positive thinking	10
Proactive	1	Proactive	6
Sensitive	1	Sensitive	10
		Confident	8
		Ideal mentee	13

Furthermore, as can be seen in table above the Concept Attributes of Mentee during the Revised Concept stage had one reference in each code. This is due to the fact that in Revised Concept stage I was using one mentor and one mentee transcript. In the Initial Strengthening Concepts stage I first used fifteen mentee interview transcripts, therefore, the number of references increased substantially.

*Initial Strengthening Concepts- Mentor & Mentee.*

Meanwhile, I also completed the Data Collection Phase 3 and coded all mentor interview transcripts to the Strengthening Concepts framework. As can be seen in table below the number of references to each code increased further as well as new codes emerged which I added to appropriate concepts.

Table 32

*Initial Strengthening Concepts Mentor & Mentee Transcripts*

<u>Revised Concepts</u> (with codes)	<u>Revised Concepts</u> References in Code	<u>Initial Strengthening Concepts</u> (with codes)	<u>Initial Strengthening Concepts</u> References in Codes (Mentee only)	<u>Initial Strengthening Concepts</u> References in Codes (Mentor & Mentee)
<b>Attributes of Mentees</b>		<b>Attributes of Mentees</b>		
Active	1	Active	10	17
Adaptive	1	Adaptive	3	3
Open minded	1	Open minded	12	13
Positive thinking	1	Positive thinking	10	12
Proactive	1	Proactive	6	6
Sensitive	1	Sensitive	10	11
		Confident	8	8
		Ideal mentee	13	25
		M Conscientious	-	3

The code 'M Conscientious' in table above emerged in the Initial Strengthening Concepts stage. I added M to the code to keep track of codes emerging at this stage. At this stage the emerging codes had few references, however, as the revision process I was planning to start rearranging references in codes in all concepts to see if a reference in earlier code needed to move to the new code or not. Due to this constant comparison I did not need to go through all the transcripts again to find a match for the new codes. Therefore, at the end of the Initial Strengthening Concepts stage I strengthened the concepts by coding all twenty-five-interview transcripts to the Strengthening Concepts framework and adding new codes to the concepts. A brief overview of the strengthening of concept process in the Initial Strengthening Concepts stage is presented in the table below:

Table 33  
*Initial Strengthened Concepts*

Concepts	IC-Mentee	IC-Mentor	FC-Mentee	FC-Mentor
Selection Criteria -Mentee	Sources 1 References 1	Sources 0 References 0	Sources 12 References 35	Sources 17 References 48
Mentee taking charge-Mentee	Sources 1 References 1	Sources 0 References 0	Sources 16 References 74	Sources 24 References 124
Displaying decision making skills-Mentee	Sources 1 References 2	Sources 1 References 2	Sources 11 References 30	Sources 13 References 38
Active-Mentee	Sources 1 References 1	Sources 0 References 0	Sources 9 References 10	Sources 13 References 17
Showing genuine interest-Mentor	Sources 1 References 1	Sources 0 References 0	Sources 7 References 17	Sources 9 References 25
Developing two way interaction-Mentor	Sources 0 References 0	Sources 0 References 0	Sources 10 References 31	Sources 20 References 53
Impact of a good mentor-Mentor	Sources 1 References 1	Sources 0 References 0	Sources 11 References 44	Sources 19 References 72
Taking initiative-Mentor	Sources 0 References 0	Sources 1 References 3	Sources 14 References 39	Sources 23 References 82

#### ***4.6.1.2 Revised Strengthening Concepts.***

Once all twenty-five interviews were coded in the Initial Strengthening Concepts stage I started the Revising Strengthening Concepts stage.

##### *The criterion.*

During this stage I revised each code in all concepts. I used the criterion that concepts and codes will survive the Revising Strengthening Concepts stage if they have relevance to the main theme, Communication in Mentoring. I used constant comparison to make changes to codes while constantly memoing about it. The criterion was enforced across all codes to strengthen the concepts which was accomplished by using three filters to look at the data:

- i. Redundant codes
- ii. Merging codes
- iii. New codes

*Redundant code.* First of all, I looked for redundant codes in the data to see if they no longer fit with the scheme of the codes and concepts in the data. I especially looked for codes that had one reference attached to them because a code having more than one reference suggests that this aspect has been mentioned by the interviewees more than once, which gives the code validity.

In Initial Coding-Mentee data a few codes had one reference till the end of the Initial Strengthening Concepts stage. Some of these codes had one reference but they were vital to understanding communication in mentoring; therefore, I kept them in the data. However, one code 'Describing Luck' in the Initial Coding-Mentee data in the

concept Strategy –Mentee had only one reference till the end of the Initial Strengthening Concepts stage (as seen in table below). The content of the reference was not connected to communication in mentoring; therefore, I decided to delete the code from the data at the Revising Strengthening Concepts Stage (see Memo 02. 06. 2017).

Table 34  
*Deleted Code*

Concept	Code	Initial Coding IC-Mentee	IC-Mentor	FC-Mentee	FC-Mentor & Mentee
Strategy - Mentee	Describing Luck	Sources 1 References 1	Sources 0 References 0	Sources 0 References 0	Sources 0 References 0

Table 35  
*Memo Revised Strengthening Concepts*

<p>Memo-02.06.2017 Revising Strengthening Concept Stage IC-Mentee: After the ISCS I am now looking at the codes, which have not gathered mass after twenty-five interviews. I don't think there would be many but I know there are some. In the IC-Mentee data the code 'Describing Luck' in the concept 'Strategy- Mentee' has only one reference. The code 'Describing Luck' is interviewee's description of what she thinks is Luck. Since its content is not directly related to communication in mentoring I think it is redundant. I looked at other codes if I could merge this reference to any other code but it was not possible due to its content. And unlike other codes no new references were added to this code in either IC- Mentor, FC- Mentee, or FC-Mentee &amp; Mentor stages. Therefore, I deleted the code from the Initial Strengthening Concept framework.</p>
---

#### *Merging codes.*

After Redundant codes I started looking for codes that can be merged to other codes. The decision to merge codes was based on three facts:

1. The codes have similar names
2. The codes have similar content but different names
3. The codes were opposite of each other with different names

#### *The codes have similar names.*

While revising the codes for strengthening the concepts I merged many codes. Some of the codes were merged because they were talking about same thing and had similar names. For instance the codes below (see table below) were merged because they had similar names.

Table 36  
*Codes with Similar Names*

Data	Previous code	New code
he wanted to Learn from me and then he wanted to give advise really personal advise and not just for a group I mean the first one he could have give a talk to two hundred people OK [Data: Violet 28.05.2016]	Showing concern	Showing concern
umm I mean its its important for everybody that somebody does not have to repeat all the time what is going on in their lives so that I may be I just write the note that I can give the also the feeling that I'm I'm listening I'm caring about them [Data: Verena 12.05.2016]	Being concerned	Showing concern

Table 37  
*Constant Comparison Revised Strengthening Concepts*

Memo: 04.06.2017 Revising Strengthening Concepts Stage A code in the IC-Mentee data under the concept Attribute-Mentor was 'showing concern.' When I was revising the codes I observed that in IC-Mentor data under the concept Attribute-Mentor similar code was named 'being concerned'. Since both codes were talking about the mentor being concerned for the mentee so in the Initial Strengthening concept framework I changed the name of the code to showing concern and merged the data. I chose the word 'showing' instead of 'being' because in my opinion showing is an action word and it allows all actions taken by the mentors to be included in this code from taking notes to listening carefully.
--

*The codes have similar content but different names.*

Furthermore, some of the codes were merged because later a code emerged that was more appropriate as it conveyed the meaning better. For instance, in Initial Coding- Mentor data a code 'Problem solving' in the concept Strategy-Mentee was later changed to 'Mentee taking charge' because the suggestion by the mentor in as seen in table below was similar to what the mentee were doing. Since the content of both extracts was similar therefore I coded them as mentee taking charge as seen in the table below:

Table 38  
*Similar Content Different Names*

Data	Previous code	New code
umm I I think I expect that that <i>they use the time</i> that we have together <i>for their purposes</i> so that if they have something they want to discuss that <i>they bring it up</i> so they need-- use the meeting that we have to talk what they feel right now or what they want to have solved [Data: Verena 12.05.2016; Italics added for emphasis]	Problem solving	Mentee taking charge
I think its more that <i>I lead that meeting</i> so it was always like that I had an issue and so <i>I started the conversation</i> . I just um <i>I had the topic</i> and I started this topic <i>I explained the situation</i> , then <i>I asked her for advise</i> [Data: Judith 18.10.2016; Italics added for emphasis]	Mentee taking charge	Mentee taking charge

Table 39

*Memo Similar Content Different Names*

<p>Memo: 08.06.2017                  Revising Strengthening Concept Stage                  Initially, I coded the first extract as ‘problem solving’, however, when I looked at it again I found that instead of giving a problem solving strategy the mentor was asking the mentee to take action. Since I had similar code by the name of ‘mentee taking charge’ I merged the first code to the second code.</p>
--

*The codes were opposite of each other with different names.*

During the Revising Strengthening Concepts stage I also came across codes whose content was negating the content of some other codes. To avail the opportunity of comparing the different aspects of a code I combined all such codes reflecting opposite views to each other as seen in table below:

Table 40

*Opposing Content Different Name*

Data	Previous code	New code
<p>He was just talking from that minute on he was talking talking talking and[then he] told me                  [Data: Violet 28.05.2016]</p>	<p>Providing little space to mentee</p>	<p>Listening to mentee</p>
<p>that he really strengthens my points .. and he really he listened to me what I was asking and tried to answer honestly and ya openly                  [Data: Violet 28.05.2016]</p>	<p>Listening to mentee</p>	<p>Listening to mentee</p>

Table 41

*Constant Comparison Revised Strengthening Concepts 1*

<p>Memo 12.06.2016                  Initial Coding Violet 28.05.2016                  Violet accidentally started talking about her previous mentor and how he was different from her new mentor. It was interesting to see her point of view. According to her the first mentor was rude and he was constantly talking without providing space for her to talk and that is why I coded it as ‘Providing little space to mentee’ because he is not allowing her space to talk and express herself. However, it is in contrast to the behaviour of her second mentor who listens to her (see code listening to mentee).</p>
--

Table 42

*Constant Comparison Revised Strengthening Concept 2*

<p>Memo: 10.06.2017                  Revising Strengthening Concept Stage                  While revising the codes I came across this code ‘Providing little space to mentee’ that was showing a professor who was talking without allowing mentee to speak. Whereas, the same interviewee also talked about her second mentor whom she praised for listening to her and this data was coded as ‘Listening to mentee’. Since both are different sides of same aspect a mentor who listens and a mentor who doesn’t listen so I have combined them under one code ‘Listening to mentee’ to do a contrast at a later stage.</p>
--

*New Codes.*

The third filter in the Revising Strengthening Concepts stage was looking at the new codes. At this stage being *new* was the filter so I looked at all the new codes

separately. And applied the filters redundant codes and merging codes to them once again. It was important to go through the concepts to see how many codes were added to the concepts and were they relevant to the main theme and the concepts they were added to? Some of the concepts at the Revised Concepts stage had multiple codes while some had one or two codes as seen in table below:

Table 43  
*Concepts, Codes & References*

<u>Revised Concepts stage</u>	<u>Revised Concepts stage</u>		<u>Revising Strengthening Concepts stage</u>	<u>Revising Strengthening Concepts stage</u>	
Concepts	Codes	References	Concepts	Codes	References
Appointments	1	1	Appointments	1	4
Meeting design	1	1	Meeting design	3	10
Grant applications	2	2	Grant applications	2	5
Attributes-Mentee	8	8	Attributes-Mentee	9	98
Strategy-Mentor	20	24	Strategy-Mentor	39	1711
			Age	2	2

Although I did not find any redundant code but it was necessary to look at the data anew to make certain. The reason for not finding redundant codes could be that during the course of coding I developed a knack for looking for data that was relevant to the theme and leaving out passages that talked about non-relevant things.

Moreover, I also applied the merging codes filter once again to the new codes. In the Revised Concepts stage there were many concepts with one or two codes and each of those codes had one or two references attached to them because the data was a mentee and a mentor interview transcripts. However, during the Initial Strengthening Concepts stage many such concepts gained weight in terms of either codes, or codes and references or both (as seen in table above). To keep this vast data organized, for instance the Concept Strategy-mentor with thirty-nine codes and one thousand, seven hundred and eleven references (as seen in table above), I tried to merge codes once again, however, I did not force the codes together.

Furthermore, there were also some concepts that emerged during the Initial Strengthening Concepts stage and had only two codes with one reference each, for instance, the concept 'Age' (as seen in table above). In the Revising Strengthening Concepts stage the criterion for concepts and codes to survive was to have relevance to the main theme, Communication in Mentoring. Therefore, I kept all concepts and codes even with only one reference if it was relevant to the main theme and merging it was not possible. At the end of the Revising Strengthening Concepts stage use of

these filters lead to some thinly coded concepts and some heavily coded concepts as seen in table below:

Table 44

*Revised Concept vs. Strengthened Concepts for Concept Strategy- Mentor*

<u>Revised Concepts</u> (with codes)	<u>Revised Concepts</u> References in Codes	<u>Strengthened Concepts</u> (with codes)	<u>Strengthened Concepts</u> References in Codes
Strategy of Mentor		Strategy of Mentor	
Being accessible	2	Being accessible	19
Being friendly	2	Being friendly	4
Being honest	1	Being honest	13
Being prepared	1	Being prepared	16
Creating positive environment	2	Creating positive environment	116
Encouraging mentees to go ahead	1	Encouraging mentees to go ahead	12
Establishing good communication	1	Establishing good communication	11
Establishing self-awareness	1	Establishing self-awareness	1
Giving complete attention to mentee	1	Giving complete attention to mentee	1
Giving customized support	1	Giving customized support	49
Impact of good mentor	1	Impact of good mentor	72
Impact of mishandled mentoring	1	Impact of mishandled mentoring	6
In-depth answers	1	In-depth answers	23
Listening to mentee	1	Listening to mentee	5
Misusing hierarchy	1	Misusing hierarchy	3
Positive encouragement	1	Positive encouragement	17
Providing opportunity to grow	2	Providing opportunity to grow	6
Respecting mentees choice	1	Respecting mentees choice	3
Supporting mentee	1	Supporting mentee	3
Providing little space to mentee	1	<del>Providing little space to mentee</del>	
		M being judgmental	1
		M changing mentees perception	3
		M determining the right question	1
		M differences	4
		M empower the mentee	2
		M giving perspective	4
		M providing reality check	11
		M selection criteria	5
		M understanding mentees dilemma	5
		M understanding the bigger picture	1
		Prompt response	4
		Providing customized nurturing	21
		Establishing trust	2
		Establishing discussion	12
		Getting to know mentee	2

		Establishing small talk	18
		Hierarchy	2
		Taking initiative	82
		Activate your logic	3

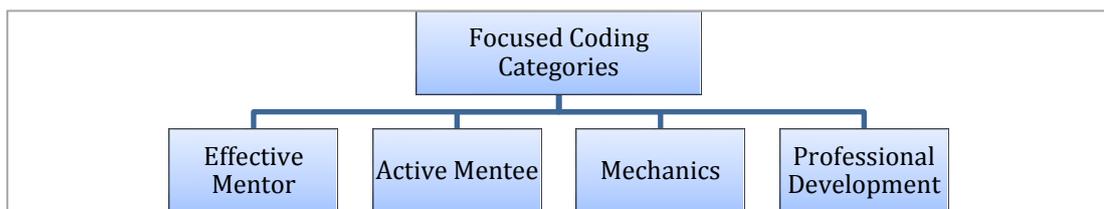
Table 45  
*Memo Revised Concepts vs. Strengthened Concepts*

Memo: 12.06.2017  
 Revising Strengthening Concepts  
 The concept Strategy- Mentor at the Revised Concepts stage had twenty codes. During the Initial Strengthening Concepts stage I added nineteen more codes to the concept Strategy- Mentor. Taking the total to thirty-nine codes in the concept Strategy-Mentor with numerous references as compared to twenty at the beginning of the Initial Strengthening Concepts stage. However, in the Revising Strengthening Concept stage I merged one code ‘providing little space to mentee’ to ‘Listening to mentee’ leaving the total code count to thirty-eight codes in the concept Strategy-Mentor. All of the codes have from a minimum of one to a maximum of one hundred and sixteen references attached to them.

Once I had gone through each code in each concept in the Revising Strengthening Concepts stage I concluded the Strengthening Concepts Stage of Focus Coding to move on to the next stage namely, Developing Categories.

**4.6.2 Stage 2- Developing Categories.**

During the early stages of Focused Coding some themes were appearing regularly that is why when I finish Strengthening Concepts stage a quick glance at the data reflected a few main recurring themes as obvious choice for categories. Therefore, based on these recurring themes I organised the concepts in four categories as seen below:



*Figure 11.* Focused Coding categories in communication in mentoring study  
 These four categories were:

1. Effective Mentor
2. Active Mentee
3. Mechanics
4. Professional Development

*Effective Mentor.*

The first category was Effective Mentor, I chose the adjective ‘effective’ because of the it was obvious from the data most mentors were making efforts to

make mentoring sessions helpful for mentees. The concepts strategy of mentor, conduct of mentor, and attributes of mentors all referred to what successful mentors do that make mentoring sessions helpful for mentees. Therefore, I decided to name this category Effective mentor although I was aware of negative experiences of mentees as well; however, at this point I decided to use those negative experiences to compare and contrast with the positive aspects of mentors to add to the credibility of the research.

*Active Mentee.*

The second category that emerged from the data was Active Mentee. I named it Active Mentee based on what was evident in the data, that is mentee talking action to improve their situation. The three main concepts at the end of Revised Strengthened Concepts stage referring to mentees were attributes of mentees, conduct of mentees, and strategy of mentees. These three concepts regarding mentees reflected individuals who were using all available resources to make mentoring a better and useful experience for them therefore their active participation in making their mentoring sessions a success made me use the adjective active for mentees. Although there were cases of complacent mentees as well; however, they were used to compare and contrast cases with reference to active mentees who made effort.

*Mechanics.*

A number of concepts were referring to mechanics of the mentoring session such as frequency of the meetings, locations, etc. I converged these concepts under the category Mechanics.

*Professional Development.*

Many mentors and mentees talked about the advice they gave or received, respectively. And it makes a considerable part of the data the advice that was given to mentees. These advices were on different topics such as grants, networking, etc. I organized them under one umbrella category called Professional Development, as all concepts under this categories were relevant to mentees success as a professional.

In short, I used these four categories to structure the vast data I collected and organized during Initial Coding and Focused Coding. At the end of Focused Coding analysis I had the following concepts and categories:

Table 46  
*Concepts and Categories in Focused Coding*

Concepts in Focused Coding	Categories in Focused Coding
Attributes of Mentee	Active Mentee
Conduct of Mentee	
Strategy of Mentee	
Attributes of Mentor	Effective Mentor
Conduct of Mentor	
Strategy of Mentor	
Meeting Frequency	Mechanics
Meeting Atmosphere	
Meeting Influences	
Grant Application	Professional Development
Networking	
Practical advise	
Projects	
Publications	
Issues	

### 4.6.3 Focused Coding analytic findings and research questions.

At the end of Focused Coding analysis, after successfully analysing the data using memos and constant comparison, I had four categories that emerged from the data. These categories were reflecting the most significant themes in the data that influenced communication in mentoring relationships. The findings of the Focused Coding analysis, categories, however, lead to four new research questions that assisted in Theoretical Coding:

1. What happens after the influences have acted out on communication in mentoring?
2. What transpires when mentees and mentors both take initiative?
3. What transpires when one is complacent and the other is active?
4. What transpires when both mentor and mentee are complacent?

### 4.6.4 Summary

In this section, I described in detail the focused coding procedure and analysis, which consisted of an elaborate Strengthening Concepts stage and based on the emerging themes a succinct and conclusive Developing Category stage, which boast four categories Effective Mentor, Active Mentee, Mechanics, and Professional Development. The findings of the analysis raised four questions that required further investigation.

## Section- 3

### 4.7 Theoretical Coding

In this section, I will discuss in detail the third and final stage in analysis, Theoretical Coding. This sections will present how I used Theoretical Coding to show that the codes, concepts, and categories were part and parcel in knitting together the details and developing a story that was grounded in the data (Charmaz, 2014; Glaser, 1978). The main focus of this section is to depict Theoretical Coding procedure and theory development.

### 4.8 Theoretical Coding Procedure and Analysis

The four categories guided by the four research questions that arose at the end of Focused Coding analysis provided the base for starting Theoretical Coding. Glaser (1978) has stated that Theoretical Coding is conceptualizing how substantive codes were related to each other. In this case, it would be how codes, concepts, and categories were conceptually connected. In order to proceed with this linking the codes, concepts, and categories in a single story, I divided the theoretical coding procedure into three stages:

Stage 1: Locating Anchor

Stage 2: Theory Development

Stage 3: Visualization

#### 4.8.1 Stage 1: Locating Anchor

The Stage 1- Locating Anchor was completed in two steps,

Step 1- Initial spark \_Memo search

Step 2- Locating Anchor

##### *4.8.1.1 Step 1- Initial spark \_memo search.*

The first step was to look for the initial spark, the angle, which I was going to use to examine the data. I started reading the fields notes, and memos about different codes and memos about interviews. While transcribing I had written memos about aspects of the interviews that caught my attention. I wrote memos while coding; therefore some of the memos were in NVivo software and some were in word documents. I carefully went through them in the software and the word documents,

and realized that some of the mentees were happy with their mentors and some of them were not satisfied with their mentors as seen in the memo below in table below.

Table 47  
*Initial Spark Memo Search*

Happy and satisfied	Memo: 29.04.2017 Attributes of mentor: When I listen to her speak of her first mentor and the second mentor it is obvious one was successful/satisfactory and one was unsatisfactory experience. How do I know this? The way she describes them, and her tone, the first one she called ‘friendly, realistic, and open-minded’ in a soft voice but when she was talking about the second one her voice pitch was higher and she called him ‘egoistic’ and ‘king’. And she was saying this on basis of how they treated her. (Violet: 28.04.2016-Linked Memo)
Un-satisfied	Memo 17 May 2017 Conduct of mentors: So I asked her, are you satisfied? and she said ‘yes,’ I was going through the transcripts again and it is so common when I ask them are you satisfied they always tell yes but when I start asking questions then the truth comes out. Not all are happy or satisfied some their mentor but why? Sandy thinks her mentor is not forthcoming, she answers all questions but never asks her any questions, the human element was missing. Michelle said her mentor was constantly referring to another postdoc so it was more focused on someone else than her. Mentors need to do more than being there, they need to change their conduct to make it mentee-centred event otherwise the mentees might not feel satisfied. (Conduct of mentor-Linked memo)

This feeling of mentee satisfaction or dissatisfaction was the ‘initial spark’ I was looking for from the sea of categories, concepts, and codes I had developed in the Focused Coding stage, and in the linked memos and field notes.

**4.8.1.2 Step 2- Locating Anchor**

Once I was sure of the angle I wanted to use to look anew at the data. I listened to the interviews once again comparing them with the memos I had. Although I had the angle, I still needed an anchor point to start my research about the different communication related experiences of mentees in their mentoring relationships. The categories developed in Focused Coding stage provided a good start this stage, and they were as follows (see table below):

Table 48  
*Focused Coding Categories*

Focused Coding Categories	Effective Mentor
	Ideal Mentee
	Professional development
	Mechanics

Among the Focused Coding Categories I selected the category ‘Professional Development’ because main focus of this program is on professional development of mentees. And communication related satisfaction or dissatisfaction in professional

development could be an interesting aspect to explore. Within the category ‘Professional Development’ I decided to further explore the concepts available in Focused coding stage as seen table below:

Table 49  
*Category -Professional Development*

Category	Concepts
Professional Development	Grant Application
	Networking
	Practical advise
	Projects
	Publications
	Issues

Among the concepts in the category ‘Professional Development’ I located a concept ‘Issues’. I decided to see what the mentees were referring to as issues with an eye for looking at it from communication in mentoring aspect. The concept ‘Issues’ had the following codes as seen in Table below:

Table 50  
*Concept -Issues*

Concept	Codes
Issues	Inexperienced Mentors
	Lack of Mentor Initiative
	Average Experience
	Stress on mentee

Out of the four codes I was intrigued by the code ‘Lack of Mentor Initiative’. I wanted to know why mentees felt mentors were not taking initiative? How does it impact communication in mentoring relationship? And what according to them was initiative. This code ‘Lack of Mentor Initiative’ became the anchor I needed.

#### **4.8.2 Stage 2- Theory Development**

Knowing the angle and the anchor was a step forward, however, it was just the beginning. Theory Development stage was completed in two stages:

Stage 1: Generalized Overview of Focused Coding

Stage 2: Theory Development Procedure

##### ***4.8.2.1 Stage 1: Generalized overview of Focused Coding***

In Stage 1- Generalized Overview of Focused Coding I tabulated the information I had gathered during Focused Coding. I made a list of WH questions, and based on the angle and the anchor, that is, issues and steps taken by mentors and mentees that affect communication in mentoring (as seen in table below).

Table 51  
*Roles of Mentors and Mentees*

	Mentee		Mentor	
Who	Female post docs		Male and Female professors	
What (they bring to this relationship)	-Attributes -Conduct - Strategy		-Attributes -Conduct - Strategy	
Why	-To make it successful		-Professional recognition -Altruism	
Issue	-Lack of initiative		-Commitment level of mentees	
Effect on Communication	-Lack of ease in asking and talking		-Low commitment from mentor	
	Steps	Projected Consequence	Steps	Projected Consequence
Steps & Projected Consequence	-Took charge	-Better professional guidance with positive attitude	-Actively involve them	-Professional growth with positive attitude
	-Complacent	-Professional Understanding	-Mentee decision	-Professional guidance

A general assumption based on the data at Focused stage was, when mentors and mentees both took initiative, the communication between them was better which leads mentees to think the mentoring relationship was successful and it could project professional growth of mentees. On the other hand, when mentors and mentees adopted complacent attitude the communication between them became slow and they viewed their relationship as a satisfactory relationship and it might be interpreted as leading towards professional guidance as can be seen in table and figure below.

Table 52  
*Memo Taking Initiatives*

<p>Memo: 20 May, 2017 Taking initiative When Violet after her first bad experience saw her new mentor taking initiative by asking her questions and listening to her, she felt confident in their relationship and took initiative to make it a success. Her initiative was to be open and listen to advise. In this case, success is their ability to communicate with each other, to be able to discuss their issues and concerns, which gave Violet a hope for seeing success in future. Similarly, in Joan’s case her mentor took the initiative of making these sessions a comfortable and safe environment for her to talk about her experiences and how they were affecting her. In return Joan also took initiative of listening to mentor with open mind and work on suggestions. These initiatives created an environment of understanding and gave Joan hope that she can achieve professional growth. However, in cases of Michelle and Sandy their mentors were not taking initiatives and it was affecting them. In Michelle’s case she decided to go with the flow and did not take initiative and she was not satisfied with her mentoring sessions because she was getting generic advise which was as good as not having any. And in Sandy’s case she took her mentor’s lack of initiative and changed her own strategy and took initiative to ask her mentor about basic academia related information, which was guidance in a way but not focused attempt on her career success, which was the target of these mentoring programs. One thing is clear from these examples when mentors take initiative and mentee compliment this effort with their own initiatives the chances of these communications to be successful leading towards professional development are much higher than the ones with where mentors and mentees hesitate to take initiatives.</p>
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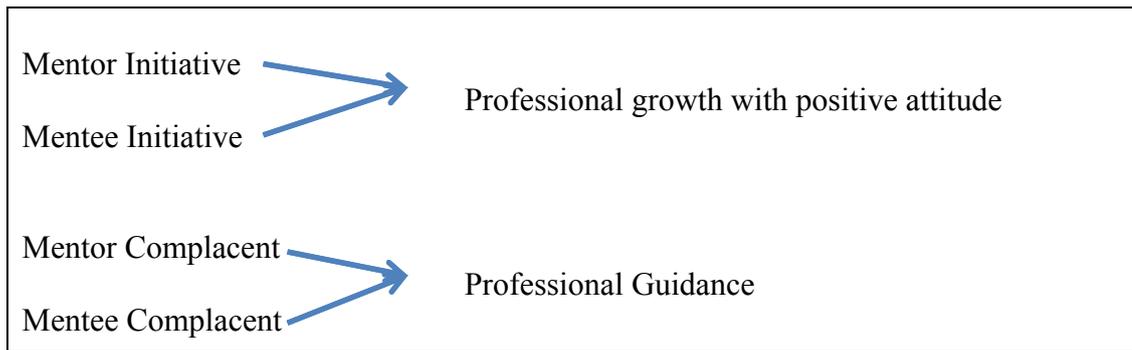


Figure 12. Successful or dissatisfactory relationship in communication in mentoring study

#### 4.8.2.2 Stage 2: Theory Development Procedure.

The Theory development was accomplished in three steps:

1. Emerging Patterns in Data
2. Theory Development and Visual depiction
3. Final Communication Patterns Model

##### *Patterns in Data.*

The relationship between mentor and mentee was successful/satisfactory or dissatisfactory due to the communication in mentoring, was further explored and I found that I was not looking at an isolated incident. Many mentees were satisfied with their mentors because of satisfied communication relationship with their mentors as the mentees were making effort to make it successful. There were some mentees who were satisfied because they were making effort but they expected more, and some of the mentees were satisfied and thought their communication relationship was a successful relationship because both they and their mentors were making effort. Similarly, some mentors were satisfied because they made effort to make the communication relationship successful. And some mentors were complacent yet satisfied because the mentees were deciding what needed to be done. These different ways of mentors-mentees interactions required an analytic scheme that would cater to all these changes, and since my stance on mentoring was that mentoring is a process and processes spans a certain time period, has certain key players, is affected by multiple factors, ends with a favourable or unfavourable result, and can have contingencies; therefore, I decided to study these communication patterns of mentor and mentee using Glaser's (1978) Six C's; namely, causes, contexts, contingency, consequences, covariance, and conditions (as seen below), in detail to see if it could be a start of a theory.

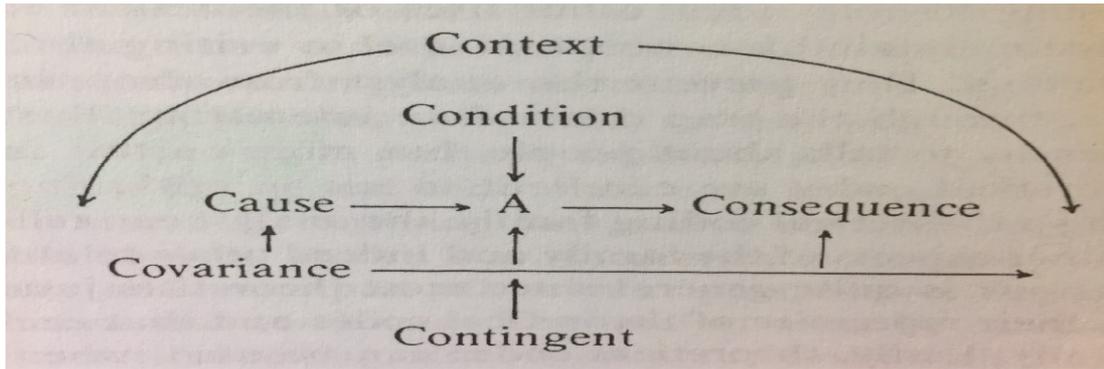


Figure 13. Glaser's (1978) Six C's Model

*Theory Development and Visual depiction.*

The stage Theory Development and Visual depiction was completed in two stages.

1. Communication Patterns Model Stage 1-4
2. Final Communication Patterns Model Stages

*Communication Patterns Model Stage 1.*

To study the communication pattern of mentor and mentee was interesting, however, I decided to make a visual presentation of the communication patterns based on information gathered in the Pattern in Data stage, and what they might lead to on short term and long term basis, these were suggested assumptions based on the data (see figure below):



Figure 14. Communication Patterns Model Stage 1 in communication in mentoring study

Table 53

*Types of Growth*

<p>Memo: 12 Sep, 2017</p> <p>Types of Growth</p> <p>What type of growth was there for Violet who was very satisfied, and for Michele who was not satisfied at all and for Sandy who was trying to make it work? When I asked them about satisfaction their responses reflected different interpretation of satisfaction based on their experiences, which showed them different future growths. Let me elaborate, Michelle said she was satisfied because the advise given to her was not relevant but might be useful some day I call this <i>Professional Guidance</i> based on its lose connection to her reality and I suggest that it might lead to <i>Sporadic Professional Upsurge</i> because may be she use could use this not-relevant-now information some day and it may</p>
--

help her professionally for a short period of time. For instance, when she stated that the mentor advised her not to stress that she was doing fine, this advise was generic and useless at this point since she is in a mentoring program to enhance her future prospects which means she is feeling she is not doing things to her potential so instead of giving her concrete advise to see how she is going in her career, mentor advises her not to stress. Yes, this is a professional guidance as may be her stress is blocking her path to success but this might not be the right way to say it at this point and time in her life. She needs concrete advice that she can act on not some off the cough remark. But may be later in life she can use this off the cough remark to clam herself and achieve *Sporadic Professional Upsurge*. In case of Sandy, she said she was satisfied because she found a way to make the sessions work for her I call this growth she will now achieve *Professional Growth*, which will probably lead to *Essential Professional Enrichment*. I say this because in Sandy's case, which is mentee taking initiative, *she* started asking about the organizational stuff about academia now this information is good for her in general not very career targeted advise but helpful professional knowledge which will help her in her day to day professional life, hence, I say she experiences *Professional Growth* and in long term I suggest that it would lead to *Essential Professional Enrichment*, which means that this advise would prove to be an essential information guide to be useful for Sandy in future to gain Professional growth. The last case is Violet, I called her growth *Professional Growth with Positive Attitude* and I suggest that it will lead to *Sustained Professional Accretion*. When I was studying in Penn I realized that all institutions help you develop and grow but top institutes also add an attitude to this mix, the attitude that this school is *the best* and if I am here so I am also *the best* so I have to do *the best* because everyone around me is also *the best* so I have to give *the best* in everything. I felt the same *attitude* thing with mentors and mentees when they both took initiative they because *the best* team. And then they worked towards excelling in this relationship by allowing all topics and in-depth sincere efforts from both sides. This I believe leads to *Professional Growth with Positive Attitude* when the mentee is convinced that she can achieve a successful career and she is on her way towards achieving it and it casts a positive influence upon on her future endeavours because the advise and attitude became a combination that once achieved would never be undone, hence, assuring future success, *Sustained Professional Accretion*.

#### *Communication Patterns Model Stage 2.*

Based on Glaser's six C's, this initial depiction of communication patterns shows mentee and mentor initiative as cause, the professional growth with positive attitude as consequence, and sustained professional accretion was contingency, and lack of mentor and mentee initiative along with only mentee initiative act as covariance. However, it was obvious that many important aspects were missing.

One major aspect was the 'Phenomenon' that happens when cause and conditions align. The cause in this stage was the initiative, which lead to a phenomenon the Communication Patterns. Three communication patterns were emerging when mentee take initiative, when mentor and mentee both take initiative, and when initiative is missing from any one of them. I named these patterns as (see table below):

Table 54  
*Emerging Patterns*

Collaborative Communication	When mentor and mentee both take initiative
Shallow Communication	When mentor and mentee lack initiative
Directed Communication	When mentee take initiative

Table 55  
*Communication Patterns*

Memo: 15 Sep 2017  
 The Communications Patterns  
 The data showed that when cause and conditions changed it changed the communication patterns, and it had an impact on the mentoring relationship. In cases such as Alex and Denise, mentors and mentees both were taking initiative and they were very satisfied with each other and mentoring sessions. I call these cases Collaborative Communication because the cause (taking initiative) and conditions (open, encouraging, and safe environment) enabled both mentors and mentees to participate equally in this communication.  
 Where as, I call Amy’s case Shallow Communication because the cause (initiative) was missing from both sides, Amy being a mentor was confused about role and she was restricting topics to be discussed and wanted her mentee to take charge so she could give suggestions here and there, while her mentee was lacking initiative as she was not interested in doing anything herself she wanted her mentor to do all the work (as quoted by Amy said). And the conditions (open, encouraging, and safe environment) were lacking due to topic restrictions and both shying away from taking responsibility hence both seem to be engaging in surface level talk for instance Amy said her mentee asked her to contact someone on her behalf and introduce her and to this Amy replied she was not sure this was her role (lack of mentor initiative-restriction imposed by mentor) then she asked the mentee to initiate the contact herself and Amy would tell the steps to take, but the mentee did not initiate the contact (lack of mentee initiative). Hence, no substantial steps towards progress were taken due to hedging from both sides and this hedging made the communication conditions less favourable to open, encouraging and safe environment.  
 I called the third case the directed communications. They were many examples of mentee taking initiative such as Kathy and Brad. Their efforts were one-sided affair therefore these relationships were satisfactory not in entirety but in bits and pieces. Where both feel lack of initiative from their mentoring partners leaving a lot to be desired.

A visual depiction of the theory at this stage is presented in figure below:

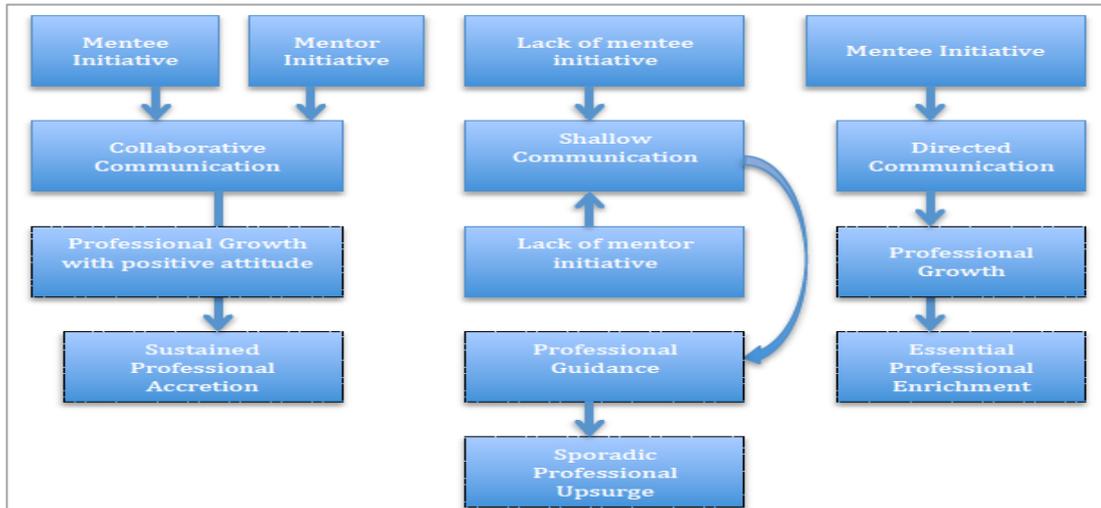


Figure 15. Communication Patterns Model Stage 2 in communication in mentoring study

*Communication Patterns Model Stage 3.*

In the model at this stage, I added the phenomenon (from Glaser’s 6C’s model) Communication Patterns, namely, Collaborative Communication and its covariance, Directed Communication and Superficial Communication. I also added contingencies, the short-term and long-term effects of mentee initiative, mentor and mentee initiative, and lack of mentee or mentor initiative. Furthermore, while

strengthening the case for Collaborative Communication, and subsequently looking at cases where Superficial Communication and Directed Communication was emerging, I noticed that some of the communication was also directed by mentor. Therefore, I added Mentor Directed Communication, another covariance, to the Communication Patterns Model Stage 3 (see figure below).

Table 56

*Glaser 6C's Covariance*

Memo: 22 Sep, 2017

## Glaser's 6C's Covariance

Earlier on I said that Communication Patterns as a phenomenon now to use Glaser's 6C's I decided to use Collaborative Communication, the ideal situation, as a point of reference to analyse what happens if causes and conditions do not align. Therefore, the main phenomenon would be occurrence of Collaborative Communication and Shallow and Directed Communications as covariance. I have used the word directed communication because I saw that in Linda's case it was she was driving the relationship despite mentees lack of response, and also in case of Robert who took full responsibility for making sure mentoring sessions are beneficial for mentees. Since now I have mentee directed and mentor directed Communication so I refer to them as directed communications as well.

Moreover, in order to define conditions, which enable the cause to lead to phenomenon, I started looking for motivation of mentors and mentees to take initiative. As I studied the data I came to realize that motivation of mentors and mentee play an important role in the Communication Patterns, therefore, I added motivation to the Communication Patterns Model Stage 3 (see figure below). Another aspect that came up multiple times in data was the persistence of mentee to make the communication a successful event. In sum, I had three conditions emerging from the data that could affect the communication patterns in mentoring motivation, initiative, and persistence. Bennett (2002) has stated that self-motivation and initiative were personal skills. Which raised the question of professional skills required for mentors and mentees. This search led me to go through the data to look for professional skills that might influence communication in mentoring. I found three professional skills influencing communication in mentoring namely, commitment, competence, and curiosity. I studied them in collaboration with personal skills and I found that both personal and professional skills were complimenting each other in the communication patterns.

Table 57

*Skills in Communication in Mentoring*

Memo: 28 Sep, 2017

## Skills

Since Collaborative Communication was the main phenomenon I started studying the conditions present in Collaborative Communication. So far I focused on open, encouraging and safe environment, however, I found that other conditions were also influencing. I reassigned them under most influential concepts that are motivation, initiative and persistence. For instance, in cases such as Tracy and Rachel the mentees and mentors were both motivated to make these sessions successful

which was reflected from their open stance, and they were willing to take initiatives and they were willing to be persistence as they kept going back with more questions. Since all these qualities being motivated, willing to take initiative and willing to be persistence were not tangible yet still exist to lead a person to excellence so I named them personal skills. In Collaborative Communication pairs those who were motivated to help or to seek help showed commitment by actually taking steps that is their motivation was complimented with their sense of commitment. Then the initiatives they took were not haphazard initiatives they were well thought out actions reflecting their competence to make initiatives worthwhile. And once they took the initiatives they were willing to be persistence, which was fuelled by their curiosity, the ability to inquire, to know more how to excel. In these cases commitment, competence, and curiosity were the professional skills that transform the intangible personal skills to achievable reality.

I redesigned the Communication Patterns in Communication Patterns Model Stage 3 to accommodate all emerging concepts (see figure below).

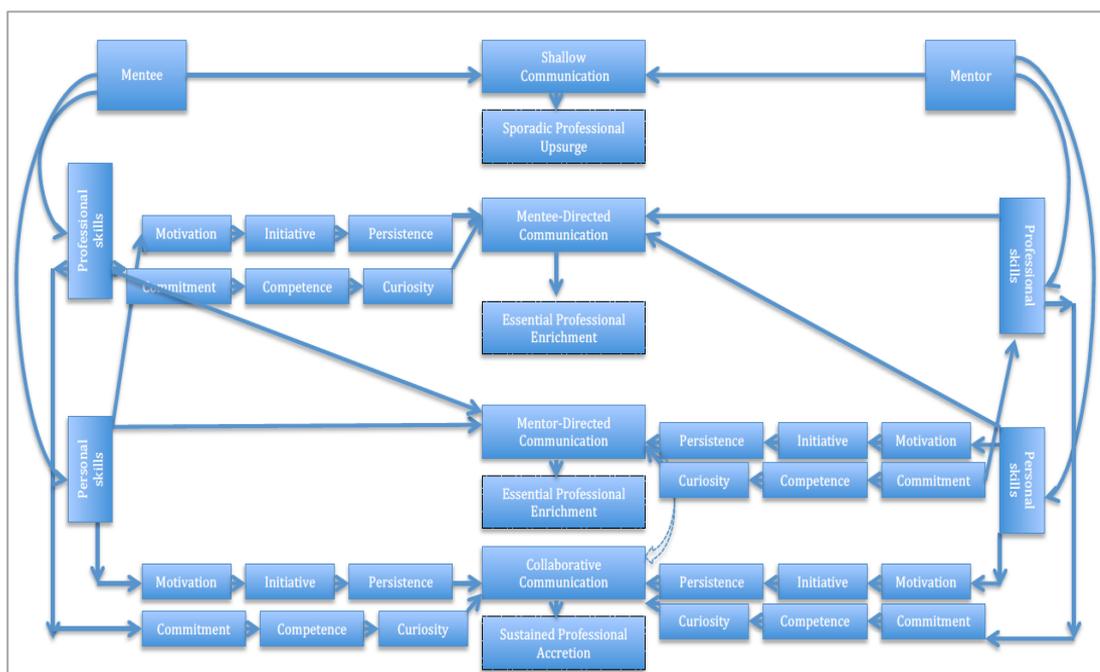


Figure 16. Communication Patterns Model Stage 3 in communication in mentoring study

*Communication Patterns Model Stage 4.*

In Communication Patterns Model Stage 3 Shallow Communication was depicted with lack of personal skills (motivation, initiative, persistence/expectations) and professional skills (commitment, competence, curiosity) from both mentors and mentees.

Table 58

*Memo Expectations in Communication in Mentoring*

Memo: 3 Oct, 2017

Expectation

Robert said he expected mentees to be prepared. And I combed through the Collaborative Communication transcripts and I observed they all expected their mentees to come prepared. I cross checked it with Shallow Communication and Directed Communication and found that expectations of mentor made more difference to mentee then persistence which was not strongly presented as these mentoring programs expected mentees to take lead so from now on I will use expectation of mentors as a measure rather than persistence.

In a discussion, my second supervisor brought to notice that the data reflected that it is not lack of personal skills (motivation, initiative, persistence/expectations) and professional skills (commitment, competence, curiosity) rather it is low intensity of personal skills and professional skills. Hence, I made changes to the Communication Patterns Model Stage 4 (see figure below) by adding + meaning High and – meaning Low I clarified the intensity of personal skills (motivation, initiative, persistence/expectations) and professional skills (commitment, competence, curiosity). I tried to capture all this detail in visual presentation, however, it was became confusing, therefore, I decided to call personal and professional skills Core Essential in Mentoring Communication (CEMC).

Table 59

*Intensity in Communication in Mentoring*

Memo: 5 Oct, 2017

## Intensity

When I was talking to my second supervisor he asked me if it was lack of these skills or if it was the intensity (high or low). When I was going through the data I made sure to check out this point and he was right I was missing a vital point here it was not lack rather low or high intensity of silks usage. So I made changes accordingly.

Moreover, I now had two factors affecting communication in mentoring that is personal skills (motivation, initiative, persistence/expectations) and professional skills (commitment, competence, curiosity). I searched the data for factors that affect personal skills and professional skills of the mentors and mentees. I found two influencing factors; first, the role mentors and mentees assume affects them, and second, selection process plays an important role for mentees. The roles for the mentors were advisor and mentor, and the roles for mentee were mentee and advisee. Furthermore, the selection process for mentee was self-satisfactory, self-dissatisfactory, prescribed-satisfactory, prescribed–dissatisfactory. The selection process did not have an impact on mentors directly, however, the role mentees select after the selection process, and the initial contact with mentees affect the mentors. I included this information in the Communication Patterns Model Stage 4 (see figure below).

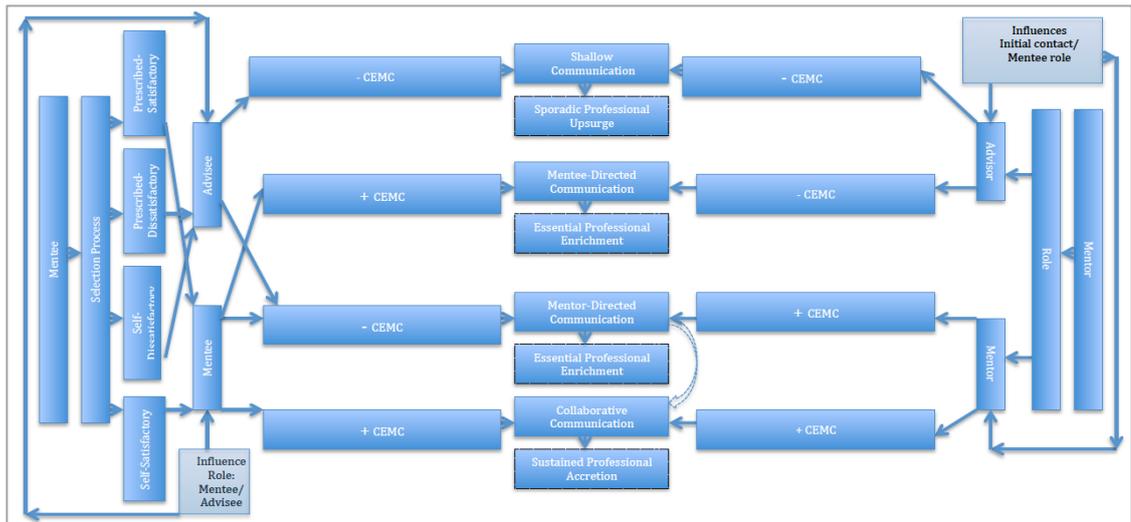


Figure 17. Communication Patterns Model Stage 4 in communication in mentoring study

*Final Communication Patterns Model.*

The Communication Patterns Model in Stage 4 depicts all the necessary aspect of Communication Patterns in mentoring, however, I was unable to show nuances and adding any thing more to this model would have made it more confusing. All aspects looked similar and it was difficult to distinguish between any two factors. Therefore, I decided to redesign the model to make it user friendly with easy to differentiate features.

*Constructing a new model.*

The first issue was how to show personal and professional skills of mentors and mentees in a way that shows their relationship and interdependency, meanwhile keeping in mind that I will have to repeat each step four times to show patterns. After many attempts at redesigning I solved this issue by constructing three semi-circles all of different colours to show different factors. They were of different sizes and then I placed them one on top of other. I placed motivation and commitment as the biggest and at the end because it triggers initiative and competence, which was placed in the middle, and then persistence/expectations and curiosity, which was triggered by initiative, was placed at the top (as seen in figure below). I also added the intensity sign to reflect high or low CEMC.



Figure 18. Final Communication Patterns Model Stage 1 in communication in mentoring study

In Final Communication Patterns Model Stage 2 (see figure below) as next step I added similar but inverted collection of semi-circles to show factors affecting mentors:



Figure 19. Final Communication Patterns Model Stage 2 in communication in mentoring study

In Final Communication Patterns Model Stage 3 (see figure below) I then inserted Collaborative Communication between the two halves, and where it might lead the mentees that is sustained professional assertion.

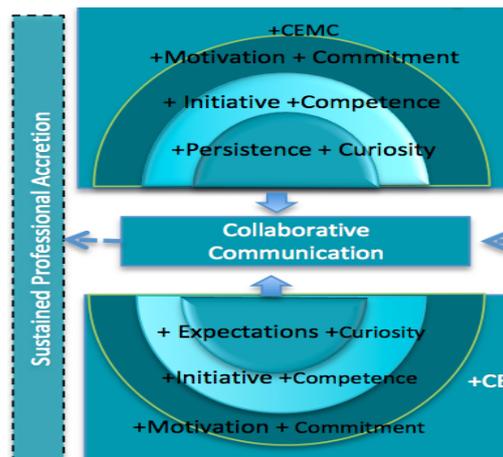


Figure 20. Final Communication Patterns Model Stage 3 in communication in mentoring study

In Final Communication Patterns Model Stage 4 (see figure below) I added the other patterns with slight changes in colour so that the distinction can be made easily between the different factors and their intensity, that is, high or low, along with factors that play important role in Communication Patterns in mentoring.

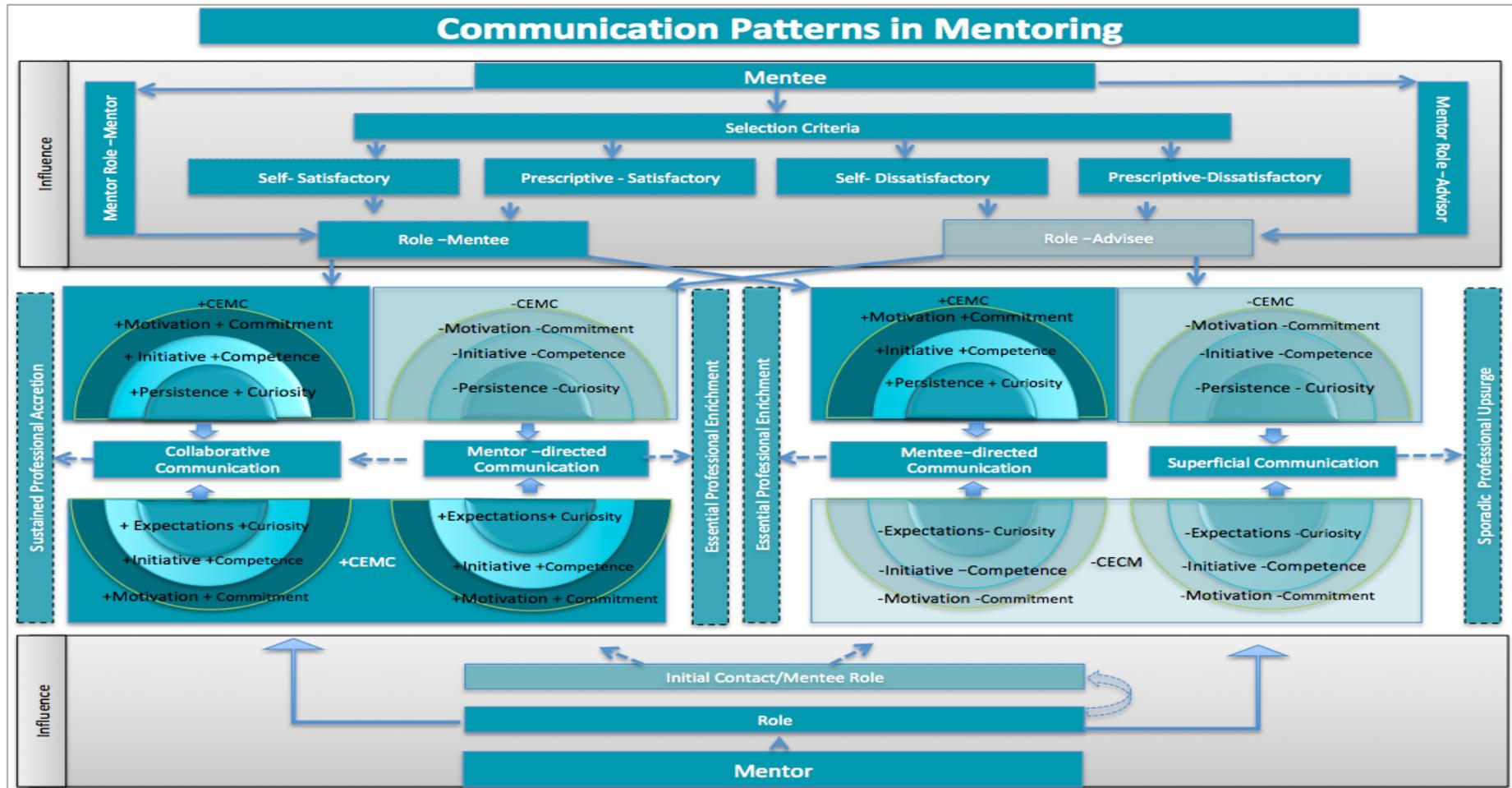


Figure 21. Final Communication Patterns Stage 4 in communication in mentoring study

To this point, the focus was on developing a theory with visual depiction; therefore, in the figure above I presented details. However, I decided to endeavour simplifying the theory depiction and therefore I came up with minimalistic model as seen below

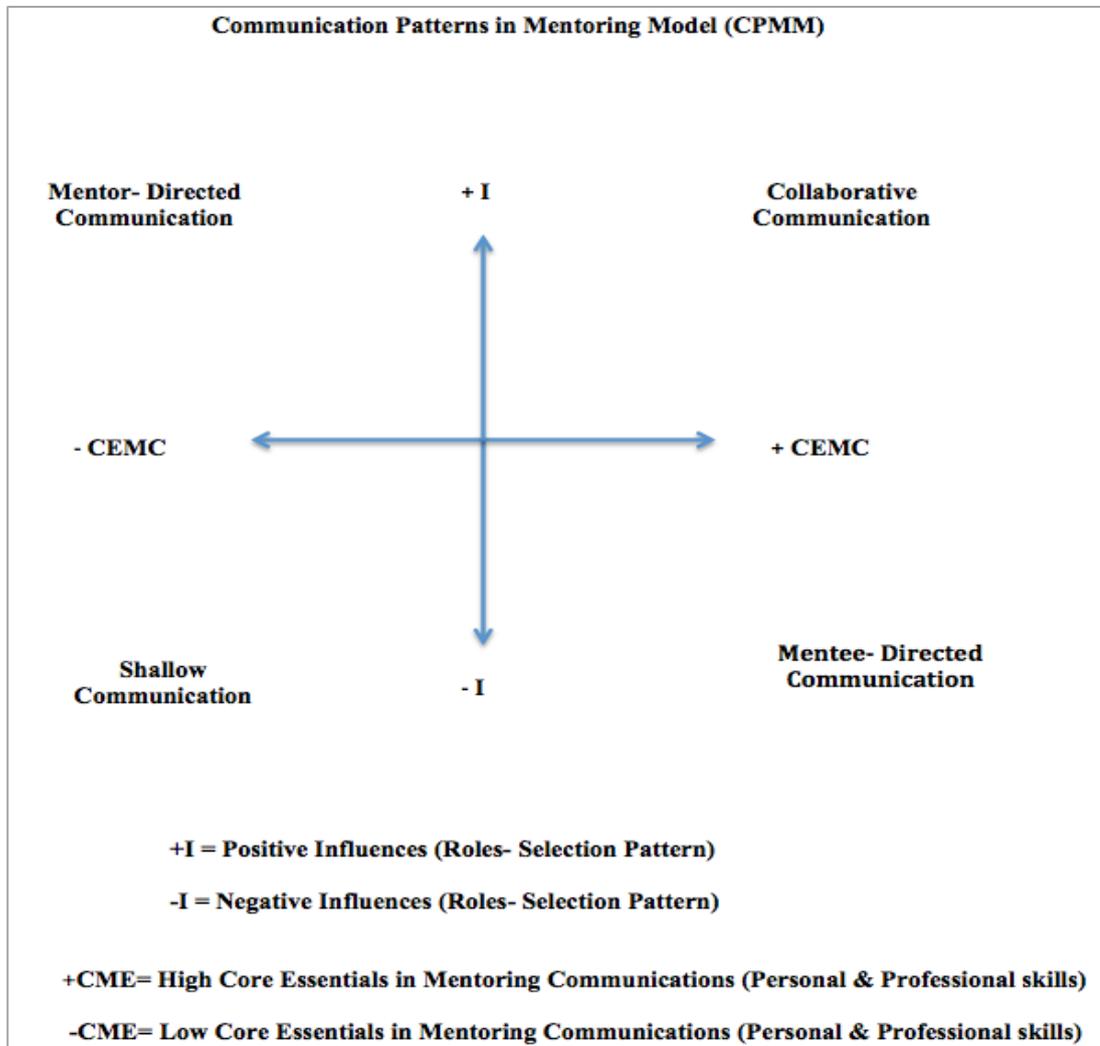


Figure 22. Communication Patterns in Mentoring Model in communication in mentoring study

### 4.8.3 Summary

In this section, I presented step-by-step procedure of Theoretical Coding and a visual depiction of theory development. I first described how to narrow down to the theme to be explored using an anchor. Once anchor was located using Glaser’s 6C’s I analysed the data leading towards theory development while depicting each stage in graphic view. I concluded this section with depiction of simplified version of theory of communication patterns in mentoring.

## Section- 4

### 4.9 Findings

In this section, I will present findings of the research conducted on communication in mentoring using three-tier analysis namely, Initial Coding, Focused Coding, and Theoretical Coding. I will first give summary of the findings in relation to research questions and later discuss in detail theory development in light of the findings, which will help in understanding the CPMM model (see figure above).

### 4.10 Findings in Relation to Research Questions

This study was inductive in nature; therefore, I did not have hypotheses at the start of the study. Initially, I had a general overarching question, what is communication in mentoring between mentor-mentee dyads engaging in one to one mentoring sessions? As I applied GT in depth I focused on themes emerging from the data. At the end of Initial Coding based on data analysis four-research questions emerged from the data, and later four more questions arose at the end of Focused Coding Analysis. I will briefly answer all eight questions based on Focused Coding and Theoretical Coding data analysis results.

1. *What personal and professional skills should mentors and mentees have for effective communication in mentoring?*

A plethora of personal and professional skills are available to mentors and mentees; however, this study found that mentor-mentee dyads engaging in Collaborative Communication had special personal and professional skills. These special personal skills comprise motivation, initiative and persistence/expectations, and professional skills comprise commitment, competence, and curiosity. I called these personal and professional skills Core Essentials in Mentoring Communication (CEMC). In Collaborative Communication mentor-mentee dyads used a combination of CEMC and complimenting individual specific personal and professional skills for effective communication in mentoring sessions.

2. *What is the role of mentors in making communication in mentoring a success?*

The study revealed that mentors might choose many roles available to them, that is, they could play the role of an advisor, teacher, confidant, and critical friend etc. individually or they could play the role of a mentor encompassing all these roles.

The study found that some mentors in university level mentoring programs opted for the role of ‘advisor’ and it affected their mentoring relationship. Where as, some mentors adopted the role of ‘mentor’, which changed communication in mentoring sessions in a positive way.

3. *What is the role of mentees in making communication in mentoring a success?*

The mentees, as found in the study, also played multiple roles. They might opt for roles such as an advisee, a student, a confidant, a friend etc. or the role of a mentee incorporating all these roles. When mentees opted for the role of an advisee communication was affected. Whereas, when mentees selected the role of a mentee the communication became effective and mentoring sessions became successful.

4. *What factors influence communication in mentoring relationship?*

During Focused Coding Analysis, it was found that factors such as *Mechanics* or *Professional Development Advise* could influence communication in mentoring relationship. Later, in Theoretical Coding Analysis, overarching themes emerged establishing that communication in mentoring was influenced by multiple factors, however, two major influences were; the roles mentors and mentees chose to play, and the selection process.

Furthermore, at the end of Focused Coding Analysis it was established that communication in mentoring was affected by some influencing factors, which lead to four new questions:

5. *What happens after the influences have acted out on communication in mentoring?*

After the influences had acted out on communication in mentoring, patterns of communication emerged in communication in mentoring. These patterns of communication in mentoring were Collaborative Communication, Shallow Communication, Mentor–Directed Communication and Mentee–Directed Communication.

6. *What transpires when mentees and mentors both take initiative?*

The study found that when mentors and mentees both took initiative Collaborative Communication transpired. Which left both mentors and mentees satisfied and willing to mentor others.

7. *What transpires when one is complacent and the other is active?*

I, also, discovered that when one was complacent and the other was active then Directed Communications transpired, i.e. Mentor–Directed Communication and

Mentee–Directed Communication. In this situation, either mentors or mentees, only one felt satisfied depending on who took initiative.

8. *What transpires when both mentor and mentee are complacent?*

This research found that when mentors and mentees both were complacent then Shallow Communication transpired. In this situation, both mentors and mentees remained dissatisfied.

#### 4.11 Defining and Explaining Theory in Light of Findings

The theory that emerged at the end of Theoretical Coding is focused on communication patterns in mentoring and it can be explained by taking a deep look at the findings. The six main findings are as follows:

*Finding 1: The Communication between mentors and mentees in mentoring relationships was influenced by different factors. The major influences were roles they adopted and the selection process.*

The communication patterns in mentoring were influenced by many small factors. However, the factors that created major changes were the roles mentors and mentees adopted, and the selection process. The role a mentor adopted; either mentor or advisor changed how he/she viewed the mentoring relationship, which led to changed communication patterns. These changed communication patterns were transmitted from mentors to mentees in shape of low or high CEMCs, and mentees responded accordingly and vice versa.

In this study, roles mentors adopted were either mentor or advisor. Advisor was most observed role in this study. Mentors took the role of advisors when they were not personally invested in the mentee’s professional development that is mentees’ career and mentees’ professional self. Mentors’ lack of interest negatively impacted mentees’ response towards mentors and mentoring sessions leading to restricted communication in mentoring as can be seen below:

Table 60

*Advisor in Communication in Mentoring*

Data: Kimberly 16.03.2017

“I think I experienced a very loose relationship, um, which wasn’t any deeper than any colleagues sitting at lunchtime together at a table. So it was [Off track] um, yea not binding [LG], um, very loose. But I think it can be, um, way more close and based on trust and openness and, um. Yea, especially when it about supporting women in research.”

Extract from interview transcripts: Kimberly 16.03.2017

Memo: Focused Coding

Kimberly 17.09.2017

The relationship she explains with her mentor is “very loose.” She said it could be “way more close and based on trust and openness...” This means that she did not feel connected to her mentor and she felt the connection between them loose. In the same sentence she used the words “trust” and “openness” suggesting that the connection between her mentor and her was loose because there was a lack of trust, which ultimately lead to lack of openness. A review of the transcripts showed that this lack of interest was due to her understanding that her mentor lacked genuine interest in helping her [referring to when she said “And he was like my final lecture was like flowers for himself. And he felt nice having a successful mentee” (92) because he gave advise which was useless for her but he can still claim to be a mentor]; therefore, investing in this relationship is not worthwhile for her. Hence, the loose connection.

Memo: Theoretical Coding  
Advisor 13.10.2017

Amy raised a good point “And so there was confusion, um, what is expected? Is it more a coaching; which is helping someone finding his or her own way, but not giving a concrete advise? Or is it giving concrete advice do it like that, no don’t do that? Or is it an advise for content? Um, I+ my opinion mentoring is not about being a third PhD supervisor. It’s about giving advice for the more general career steps that should happen” [Interview Transcript Amy]. I believe when a mentor just gives advise for the sake of saying something useful but does not have a connection with the mentee he/she is playing the role of an advisor. They are “competent and he is politically correct” but the atmosphere they create is “not warm or its not personal” [Interview Transcript Michelle]. It’s “respectful” and sometimes “a little bit stiff” where both “appreciate each others comments” not an atmosphere to “confide in each other” yet suitable for exchange of knowledge a “valuable” commodity [Interview Transcript Sandy]. The advisors’ attitude does not invite the mentee to talk about personal things because they say, “we don’t know each other well enough” [Interview Transcript Kathy] which can be easily altered by as Rachel states, “if I’m a mentor I would like to give my own experiences for other to help them to find their way and to understand their own experience may be a little bit” [Interview Transcript Rachel]. A few small steps that advisors can take that can change their role from advisors to mentors. Is it absolutely necessary to do it? No, I don’t think so, but will it help? Yes, it will. The mentors in these examples were playing safe by adopting the role of advisor but in fact they were hindering the communication process in mentoring by creating an invisible wall between themselves and the mentees. The wall they drew was convincing the mentees not to engage fully and adopt the role of advisee. The advisee then held off much information, which could have helped them professionally and on personal level, therefore, making the whole mentoring process a less than desirable activity.

On the other hand, when mentors assumed the role of a mentor their actions convinced mentees of their commitment and brought forth an atmosphere of trust and sharing (as can be seen below) in which mentees felt safe to share professional experiences and seek guidance.

Table 61  
*Mentor in Communication in Mentoring*

Data: Joan 15.08.2016  
“Well its ah its what I said about her attitude that she is not a friend she is not saying everything will be fine, she is not saying you are perfect, your boss is really bad, she is giving her opinion as a PI and+ but she still understands every things and she respects my decisions and makes me aware of the consequences of my decisions.”  
[Interview Transcript Joan 15.08. 2016]

Memo: Initial Coding- Effective Mentor  
Joan 25.12. 2016

Joan has so beautifully defined a mentor “Well its ah its what I said about her attitude that she is not a friend she is not saying everything will be fine she is not saying you are perfect your boss is really bad she is giving her opinion ... and+ but she still understands every things and she respects my decisions and makes me aware of the consequences of my decisions.” I think it sums up what most mentee see or wish to see in their mentor the attitude is what make the difference.  
[Interview Transcript Joan 15.08. 2016]

Memo: Theoretical coding

Mentor 09.10.2017

Who is a mentor? I will go back to the definition of mentor that Joan 15.08.2016 gave. Some how it is most logical, comprehensive, and convincing description of a mentor. But I will add to it what Violet said “that he really strengthens my points .. and he really he listened to me what I was asking and tried to answer honestly and ya openly” [Violet 28.04.2016].

Being a mentor does not mean to give an outline of professional steps that you need to take rather it is as Violet states “step by step” guidance with personal examples. To be a mentor is to be someone who gives “outsider perspective” and “knows other things too” [Alex]. A mentor is not friend to mentee because “these are professional problems that are being discussed and not private problems that are being discussed” [Angie 27.09.2016] so there should be a “respect kind of situation” [Jen 27.09.2016]. Yet with this respect should be the concern for mentees professional growth and the growth of mentees professional self. When mentor adopt this attitude the mentees responds accordingly and the communication flourishes between mentor and mentee.

#### *Influence of Selection Process and Theory Development in Light of Findings.*

Furthermore, selection process was a major factor that affected communication patterns in mentoring relationship for mentees. There were four sub-categories of selection process, namely Self-Satisfactory, Self-Dissatisfactory, Prescribed-Satisfactory, and Prescribed- Dissatisfactory. These sub categories affected the role mentees adopted i.e. either mentee or advisee. The role selection then started the chain reaction of affecting mentees’ low or high CEMCs and mentors responded accordingly, and vice versa. The mentors, on the other hand, were not affected by selection process; rather by the role mentees adopted which becomes evident in the first contact.

The four sub-categories of selection process are self-explanatory.

#### *Self-Satisfactory.*

The Self-Satisfactory category included two types of mentees, one who selected their own mentors and they were satisfied with communication in mentoring relationship because their mentors were playing the role of mentors. And the second type of mentees were those who selected their own mentors but their mentors chose the role of an advisor, these mentees changed their objectives and strategy to engage the mentor/advisor to improve communication in mentoring relationship to make these mentoring sessions successful.

Table 62

#### *Selection Process Self- Satisfactory in Communication in Mentoring*

Data: Selection Process- Self- Satisfactory

“...and I am very happy with this and hope I can continue with this regularly meeting with the mentor, aa until now I am still in contact with her um and I don’t know I have to ask her if she would be willing to continue at least once a month meeting or just by email.”

[Interview Transcript Alex 24.08.2016]

*Self-Dissatisfactory.*

The Self-Dissatisfactory category included mentees who chose their own mentors, however, due to their own low CEMCs and/or the mentors' choice of role, i.e. to be an advisor, made communication in mentoring relationship less engaging making the mentoring sessions inadequate and leaving mentees dissatisfied. In this scenario CEMCs of mentees were low due to unclear objectives, which directly affected communication in mentoring relationship.

Table 63

*Selection Process Self-Dissatisfactory in Communication in Mentoring*

Data: Selection Process Self-Dissatisfactory

"...so she is not umm taking the initiative what I have heard from some of the other mentees they really felt if they went to a meeting with their mentor the mentor would have all kinds of questions for them and wanted to push them a bit in apply for this or do that clearly you should do this and umm she didn't do that so she wasn't in that sense aiming to motivate or yea its hard to find the right words for that she didn't do that so it was she was really she was present and open to questions she was there but it was up to me to come up with the questions and the topics and to get out of these meeting what I wanted to."

[Interview Transcript Sandy15.08.2016]

*Prescribed-Satisfactory.*

The Prescribed-Satisfactory category includes mentees who have been given mentors by the mentoring programs and they were satisfied with the arrangement. It could be for two reasons, one, that mentees were paired up with mentors who adopted the role of mentor enabling effective communication in mentoring relationship. Secondly, if mentors have opted for advisor role, mentees changed their objectives to ensure engaging communication in mentoring relationship to gain as much as they can from the mentoring sessions.

Table 64

*Selection Process Prescribed-Satisfactory in Communication in Mentoring*

Data: Selection Process- Prescribed-Satisfactory

"Yea, yea, so um yea, we have a coordinator of this program and she told me so this so she could be your mentor, do you want her or not? And I said ok [LG]."

Yea, yea, yea she is+ she is very, um is the word engaged ... in a positive way, so she really wants to help and she pushes things forward, ...that was good so for me yea because it was very positive any time"

[Interview Transcript Judith 18.10.2016]

*Prescribed-Dissatisfactory.*

The Prescribed-Dissatisfactory category consist mentees who had been given mentors by the mentoring programs and they were dissatisfied with the arrangement. This was due to the fact that their mentors took up role of an advisor and the mentees themselves had low CEMCs making communication in mentoring relationship a shallow disengaged activity causing both mentors and mentees to have low interest in

making the sessions successful. The low CEMCs in mentees in this scenario were due to lack of say in the selection process. For mentees coming to terms with feeling that the mentor was imposed and not well matched with their needs as well as unclear objectives due to imposed mentor created low CEMCs and it is amplified if the mentor adopted the role of advisors.

Table 65

*Selection Process Prescribed-Dissatisfactory in Communication in Mentoring*

<p>Data: Selection Process</p> <p>“I think, um, he wasn’t well chosen for me. We weren’t really very good couple, he was very nice and friendly and whatever. But ... we have very very different backgrounds and my pathway for career is very very different than ... So I wasn’t really convinced if he is right one to give me advice, um, what to do?”</p> <p>[Interview Transcript Kimberly 16.03.2017]</p>
<p>Memo: Theoretical coding</p> <p>Selection Process</p> <p>05.10.2017</p> <p>Most of the mentee that participated in the study were satisfied, however, there were some odd cases. The dissatisfaction could be for multiple reasons but one theme that was actually brought to my notice was selection process and how it affect mentees by a mentee in her email “...I think the biggest challenges for mentoring are i) find the right constellation of mentee and mentor...”[Kimberly email dated 28.03.2017]. When I looked at the data I found that there were cases when mentees took the role of advisee because the mentors were either not selected by mentees and there was a disconnect between mentor and mentee, or they were selected by mentees but later found the mentoring sessions unsatisfactory. Hence, the four selection processes are Self-Satisfactory, Self-Dissatisfactory, Prescribed-Satisfactory, and Prescribed-Dissatisfactory. Usually a sign of good relationship is how they talk about the sessions, for instance, for a Self-Satisfactory example Alex talks about meeting her mentor in future that reflect that she valued her mentoring sessions and her interview was full of incidences, which showed her taking active part in the mentoring sessions. The Self-Dissatisfactory category mean that the mentee were part of mentor selection process however later it was not satisfactory for them. There could be multiple reasons for that one of the reason for could be as in Sandy’s case that the mentor was not taking active role. The Prescribed –Satisfactory could be the example of Judith when the selection worked for her in complete contrast to Kimberly whose mentor was least ideal for her and she had to adopt the role of an advisee.</p>

*Finding 2: The influencing factors affected mentors’ and mentees’ CEMC’s affecting communication in mentoring.*

The major influencing factors, role of mentor and selection process, affected the CEMC of mentors and mentees, respectively. The mentors were affected by the role they decided to play, either mentor or advisor. If they selected to play the role of a mentor their CEMC was high providing better environment for communication in mentoring to flourish. On the other hand, if the mentor chose to be an advisor then it led to low CEMC making the environment less conducive for effective communication.

Table 66

*Influencing Factors Role of Mentor in Communication in Mentoring*

Memo: Theoretical coding  
 Influencing factors -Role of mentor  
 18.12.2017

The high CEMC of the mentor and its effects can be seen in Alex's case. Her mentor was motivated and committed which was evident from her conduct with Alex such as encouraging, accepting, being available, pushing her to do more, etc. for instance, Alex said, "... she has never been like not respected me or not supported me in general she has been encouraging me and pushing me a bit more" (line 84). And the initiative she took for Alex such as giving her in-depth advise and her competence in executing the desired initiative was also visible. For instance, Alex stated, "and then she replied its very convincing just a few comments and they were like four five small things about words I was using something like yea you have mentioned this or don't forget to change this word, ... so yea it was good that few things she mentioned were good" (line 255). The impact of mentors' curiosity to see her grow and corresponding expectation were reflected when she said, "... at the beginning I think like 'O, she is giving me homework and if I don't fulfill that,' I felt a bit under pressure and actually it was good because I still feel a bit of pressure and this has made me keep my deadlines ... "(line 27) and when asked about her experience she said, "Its been very good" (line 11). Through out her interview it was visible that she had active communication with her mentor.

On the other hand, when mentor has low CEMC their role shifts to being advisor and its effects can be seen in their mentoring and on communication in mentoring. In this scenario Michelle is a good example, the mentor had low motivation and commitment and was acting as an advisor therefore the motivation to help her professionally was low, for instance motivated mentors are honest with their mentees and want to work with them to help mentees professionally. However, Michelle mentor/advisor was being less than honest as she said while talking about her CV the mentor/advisor said, "... told me aww it doesn't look that bad and its all every thing is fine ..."(Line 85) but she added, "[I'm] not sure if ... has had a look on it so..."(Line 89). Also the initiative from the mentor/advisor was limited, least mentor /advisor could do was to give in-depth/personalized answers, sadly Michelle said, "... gives more generalized answers..."(Line 82), hence showing low competence to execute initiative. This low initiative from mentor/advisor was affecting communication between them as she withdrew from making effort. It was evident from her actions because for a once in a six month meeting she only prepared for it in an hour and she said, "The last time I took one hour"(line 176). Michelle did not relate any curiosity or expectation her mentor/advisor had from her and in turn she also treated the mentoring sessions as least important activity in the mentoring program.

On the other hand, the selection process and its sub-categories were a major influencing factor for mentee. It led to different roles mentees selected either as mentee or advisee, which ultimately affect communication in mentoring. When they selected to be mentee their CEMC were high leading to effective communication in mentoring. And if they selected to be advisee then it led to low CEMC and communication in mentoring was stilted.

Table 67

*Influencing Factors Selection Process in Communication in Mentoring*

<p>Memo: Theoretical coding          Influencing factors - Selection Process          21.12.2017</p> <p>The selection process and its sub-categories namely, Self-Satisfactory, Self-Dissatisfactory, Prescribed-Satisfactory, and Prescribed-Dissatisfactory, are a major influencing factor for mentees. It leads mentees to select roles of either a mentee or an advisee, which in turn affect communication in mentoring. In Self-Satisfactory and Prescribed-Satisfactory situations the mentee choose the role of mentee, for instance, in Alex (Self-Satisfactory) and Judith (Prescribed-Satisfactory) both adopted the role of mentee, which mean communication in their mentoring sessions was active. Both Alex and Judith were motivated and committed to make these sessions work as both went to mentoring sessions with clear objectives. They took initiatives and showed competence of achieving their goals. As Judith said, “Yea, so I’m more asking questions but I would not talk too much about myself, so I would bring a topic up then ask her and ask her advise and let her talk more or less” (line 204). Alex also took initiative to make mentoring session more helpful for her by setting the agenda for the next meetings as she said, “so it was my my main concern so where I feel like not strong enough where I don’t have knowledge... so it was me setting the agenda” (line 52). And they were both curious and persistent to make these sessions successful for them. For instance, Alex reflected persistence by completing the assigned tasks on time or at least try to do it as much as possible by taking it as a challenge. Judith as well was persistence by being prepared to get most out of every meeting with intelligibly thought-out questions. Their selection of the role ‘mentee’, being motivated and committed, taking initiative and showing competence, and being curious and persistent created an environment of Collaborative Communication in mentoring.</p> <p>On the other hand, when the mentee select the role ‘advisee’ the communication is restricted as in the cases of Kimberly (Prescribed-Dissatisfactory) and Sandy (Self-Dissatisfactory). Due to dissatisfactory mentor selection both Kimberly and Sandy’s interview reflect dissatisfaction as they assume the role of advisee leading to constrained communication.</p> <p>Kimberly adopted the role of advisee when she realized that her prescribed mentor was playing the role of advisor. At first she was motived and committed and had her objectives for mentoring sessions, however, after first meeting she said, “But I think it was nice to hear but, um, I didn’t really feel that I was enriched by knowledge, or by strategies, or something, um, for my pathway” (line 22). Despite this she twice she took initiative and showed competence to lead discussions with issues relevant to her, however, every time she was reduced to the role of advisee by her mentor/advisor’s response. For instance, she said when she asked his advise on a matter of importance, “he only said well you have to talk to your head of the department. So I thought well thank you very much for this advice” (line 47). Finally she accepted the role of advisee and brought generalized topics in mentoring sessions. Similarly, Sandy accepted the role of advisee when she realized her mentor was more of an advisor. Her motivation and commitment was subdued by her mentors/advisors short responses. Her initiatives and competence to make the sessions successful only added burden of carrying the conversation on her as she stated, “Yea sometimes I think that’s also because its was really up to me to come up with each topic of conversation and yea that was sometimes quite hard to do to keep up that”(line 183). Sandy also accepted the role of advisee and the focus of mentoring session shifted towards generic academic issues. In both cases unsatisfactory mentor selection changed the communication patterns in mentoring sessions for Sandy and Kimberly as both experienced Mentee-Directed Communication.</p>
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*Finding 3: High CEMC in Mentors and mentees could lead to Collaborative Communication.*

In a mentoring relationship when both mentors and mentees came to the mentoring sessions with high CEMC, they encouraged and influenced each other to perform better together as a team. The communication in this mentoring was called Collaborative Communication as both mentors and mentees took steps together to make the communication in this relationship better.

Table 68

*Collaborative Communication in Communication in Mentoring*

Memo: Collaborative Communication

18.09.2017

Many examples of Collaborative Communication are present in the data. For instance, Joan and Crystal both enjoyed Collaborative Communication in their mentoring sessions although both of them had different objectives. Joan joined mentoring programs to seek answers for issues related to her professional self and Crystal joined mentoring program for professional development. Joan and Crystal were both motivated and committed with clear objectives and in return their mentors were also motivated and committed to help them. Joan was seeking help for professional self and her mentor responded by being accessible and committed to help her find solution. For instance when Joan was confused about writing an important official email her mentor offered help she stated, "... and I didn't know how to do that and she offered herself to read my email..."(line 149). Crystal mentor was also motivated to help her by empowering her with good advise as she said, "Yea somehow and like explain me ... That it was not my fault but the fault of the other and why they were acting like this. That it was all a power play and had nothing to do that I wasn't that I was ill prepared or something like that" (line 77).

As both mentor and mentee were motivated and committed and reflected competence via initiatives they took to make the sessions successful as Joan stated, "and I did that and then we meet so in the first meeting for instance she gave me some kind of not like homework but I had to take some decisions, I had to write some emails and then she said ok first do that and then once you are done then we will meet again. So somehow I did it and then we meet again so it was more like that" (line 77 & 78). It was similar with Crystal, she also took initiative and informed her mentor what she wanted to discuss instead of her mentor taking lead. She said, "... I prepared these specific questions I had. So I asked them at the beginning of the question, well I want to let you know that today I have I want to talk about two or three points... and so she answered these questions" (line 53).

Both mentors were curious and had expectation from their mentees. They showed curiosity by listening to mentees and asking questions that would engage mentees in reflective discussions. And they showed expectations, in Joan's case her mentor gave her tasks to accomplish and in Crystal's case her mentor expected her to be prepared with list of questions so as not to waste time and both mentees were persistent and made sure that the mentoring sessions were to their satisfaction by fulfilling mentors expectation. In short mentors and mentee both were making effort to make these mentoring sessions successful by contributing to these sessions and their contribution at each step made it easy for them to talk and share with each other due to confidence in each other. This confidence to talk and share while going through the steps of mentoring sessions created an environment conducive for communication and since it is a step by step joint effort hence it is Collaborative Communication.

*Finding 4: A combination of high CEMC in mentors and low CEMC in mentees could lead to Mentor-Directed Communication.*

The Mentor-Directed Communication happened when the mentor in the relationship had high CEMC and mentees had low CEMC. In this relationship the high CEMC of mentors could influence mentees, changing low CEMC to high, and this change could lead to Collaborative Communication. In case mentors' high CEMC does not influence and mentees' low CEMC then Mentor-Directed Communication occurred.

Table 69

*Mentor-Directed Communication in Communication in Mentoring*

Memo: Theoretical Coding

Mentor-Directed Communication

20.12.2017

Judith is case study of Mentor-Directed Communication that turned to Collaborative Communication.

Her program selected her mentor and she fits in the Prescribed-Satisfactory category because she found her mentor to be helpful and supportive of her professional development. When she was first told of her mentor she was apprehensive and she went to the first meeting with low motivation and commitment as she said, “and I more like a bit+ I’m more I don’t know exactly what I want, I don’t know” (line 23) and an attitude to see how things unfold. Judith described her mentor as, “she is very driving”(line 22) and her mentor’s interest in Judith as a person and the guidance she gave her in form of sharing her own experiences was valuable for Judith and changed her motivation and commitment from low to high. The changed motivation and commitment compelled Judith to take initiative and show competence, while being curious and persistence to meet her mentor’s expectations. The relationship they thus had was Collaborative Communication.

On the contrary, Linda’s case was simple Mentor-Directed Communication, which did not turn to Collaborative Communication because her mentee was not as invested as she was in this mentoring relationship. The mentee had selected her, however, the mentee had low motivation and commitment because she was not exactly in the same field. Although Linda showed competence by taking initiatives like she said, “I more frequently contacted her than vice-versa” (line 214) and later added, “Just as I thought when I have the impression that she a bit shy then may be, um, it’s better for her if I ask her” (line 216). Linda was ready to take more initiative as she explained, “Then I could have tried to find out more specific details to recommend her and to advise” (line 131), however; the mentee was not taking initiative. And despite Linda’s curiosity and expectations to make the session successful the mentee’s low curiosity and persistence, and hesitation to continue the session made this a one sided communication that is Mentor-Directed Communication.

*Finding 5: A combination of high CEMC in mentees and low CEMC in mentors could lead to Mentee-Directed Communication.*

The Mentee-Directed Communication took place when mentees in this relationship had high CEMC. The mentors, on the other hand, joined this relationship with low CEMC. In this communication, mentees did not influence and change mentors’ CEMC from low to high, yet despite the low CEMC in mentors, mentees managed to make communication in this relationship advantageous for them.

Table 70

*Mentee-Directed Communication in Communication in Mentoring*

Memo: Theoretical Coding  
Mentee-Directed Communication  
21.12.2017  
Sandy, Kathy, Patricia, and Brad are examples of Mentee-Directed Communication. However, Patricia and Brad make interesting cases for Mentee-directed Communication. Patricia selected her own mentor and she was satisfied with the mentoring experience. Her mentor was not from academia, and was unsure how to help her. This uncertainty on the mentor’s part was causing low motivation and commitment. She described this lack of interest reflecting low motivation and commitment as, “I sent ... the information, but I had the impression, also the CV and something, well I the impression ... didn’t look at the CV” (line 22). However, Patricia was highly motivated and tired to convince him as she said, “So I explained him on the phone, what’s the advantages for him, what’s the advantages for me” (line 23). She also showed competence by taking initiatives like initiating contact with mentor as she said, “I think it’s so important so be active so as pro-active not waiting till they contact you, you know you have to actually take the initiative I think this is important. Hmm, yea, that you really kind of push it I would say” (line 283). And she was curious and persistent, as she made sure the next meetings were goal oriented and she prepared for them. However, despite her initiative and persistence the mentor maintained low profile, hence, it was a Mentee-Directed Communication.

The other case was Brad he was the only male mentee participant of the study. He was a deviant case so I wanted to see if his experience was any different from female mentees. Brad selected his mentor and was satisfied with the relationship; however, it was also Mentee-Directed Communication. Brad was motivated and commitment to use this opportunity to his advantage and his mentor reciprocated the feeling. However, as Brad said initiative from mentor was missing, “I

don't know yea essentially it puts all the initiative on me that could yea that's little bit of a draw back" (line 151). Brad was curious and persistent but he said he would initiate contact with his mentor when he had an issue that needed to be discussed and his mentor in return had expectations from him which Brad was interested in fulfilling, however, it was a mentee lead relationship, hence it is Mentee-Directed Communication.

Important aspect to note is that the Mentee-Directed Communication was satisfactory event for all four mentee in Mentee-Directed Communication cases namely, Sandy, Kathy, Patricia, and Brad. In order to make communication better they made changes to their objectives, took initiatives, and engaged their mentors as best as they could to make these mentoring sessions successful.

*Finding 6: A combination of low CEMC in mentors and low CEMC in mentees could lead to Shallow Communication.*

Shallow Communication in mentoring occurred when mentors and mentees both entered mentoring relationship with low CEMC. The mentees and mentors did not influence each other towards excellence. Shallow Communication might satisfy immediate needs of mentees, however, it would not have a long lasting effect on mentees.

Table 71

*Shallow Communication in Communication in Mentoring*

Memo: Theoretical Coding

Shallow Communication

22.12.2017

Michelle and Kimberly are two cases where Shallow Communication was evident. Michelle selected her own mentor, however, the mentoring sessions were not successful. To begin with Michelle did not have not clear objectives so she started the mentoring session with low motivation and commitment, and her mentor opted to play the role of advisor. Many mentees like Sandy and Kathy turned the situation around by maintaining the role of mentee, however, Michelle adopted the role of advisee. In their roles as advisor and advisee they talked about general topics and guidelines for professional development. Therefore, at the end neither were curious and nor the advisor had expectation from advisee, and nor the advisee was persistent to continue the meetings as they were.

The other example was Kimberly whose mentor was chosen by the program and it was a Prescribed-Dissatisfactory category. The mentor had low motivation and commitment and was interested in the role of advisor. Since Kimberly was close to finishing she adopted the role of advisee and talked with mentor about generic topics, which were useful in general but had no significance specifically for Kimberly's professional development. In both cases the Shallow Communication between advisor/mentor and advisee/mentee made the mentoring sessions a less interesting event.

## Summary

In this section, I presented the finding in two steps. Initially, I briefly answered the research questions, which prepared ground for defining and explaining the theory in light of findings. This study found that communication in mentoring has four patterns, which emerge due to the influences that affect mentor-mentee dyads in mentoring relationship.

### 4.12 Conclusion

This chapter was focused on Analysis and Findings, and I described in detailed the tri-tier analysis procedure I adopted to analyse the data. This tri-tier

analysis procedure comprised Initial Coding, Focused Coding, and Theoretical Coding. For convenience, the chapter was divided in four sections; one for each coding stage complete with details of procedure, analysis, and findings, and fourth section was used to present the findings and theory development in light of findings. This chapter concludes with the findings that communication in mentoring has patterns and they are affected by influencing factors.

## **Chapter 5- Discussion**

### **5.1 Introduction**

I started this research to understand communication in mentoring and how it impact mentoring relationships. The focus of the research was on mentoring programs in Germany that offer one-to-one mentoring for postdocs. As established earlier, I found communication in mentoring impacts the success of mentoring relationships in one-to-one mentoring between mentors and mentees. I discovered four patterns of communication, namely, Collaborative Communication, Shallow Communication, and Directed Communications between mentor-mentee dyads. In this chapter, I will start with explaining communication patterns, then I will discuss in detail Collaborative Communication and through out the chapter I will compare and contrast it to the other communication patterns while relating the results to literature.

### **5.2 Patterns of Communication in Mentoring**

In this research, I found that mentoring relationships in one-to-one mentoring between mentor-mentee dyads were at varying degrees of success or ineffectiveness due to effectively managed or mismanaged communications, respectively. And, the mentoring dyads were unaware that communication patterns were affecting their relationship. The study found that in successful mentoring sessions impact of good mentoring communication was obvious, however, in ineffective mentoring sessions, despite good intentions, mentor-mentee dyads were being subjected to an unhealthy mentoring environment, which could have long-term effects on both mentors and mentees.

The answer to the main question was established through this research that communication in mentoring affects mentoring relationships, and four patterns were found when variations in conditions were observed. The most effective and successful communication pattern was Collaborative Communication, and I suggest it as the role model for all mentoring communications; meanwhile, being aware of the variations, Shallow Communication and Directed Communications, can help mentor-mentee dyads to avoid unnecessary confusion. Therefore, it was important to understand communication patterns in mentoring through the lens of factors that influence

communication in mentoring resulting in patterns of communication in mentoring. I will now discuss in details Collaborative Communication comparing and contrasting it with Shallow and Directed Communications.

### **5.3 Collaborative Communication in Mentoring**

Collaborative Communication in mentoring is a communication phenomenon, which focuses on personal and professional growth of mentors and mentees by enabling them to engage mutually in constructive communication to generate productive knowledge. Although, Mena et al. (2017) have discussed professional knowledge, in Collaborative Communication the core concept is generation of knowledge, both personal and professional, when mentors and mentees “developed, discussed, shared and critiqued” together as equals (p.49). Cochran-Smith and Paris’s (1995) as cited in Richter et al. (2013) have referred to this generation of knowledge as ‘Knowledge Transformation’. Thus, Collaborative Communication in mentoring is based on concepts such as Knowledge Transformation yet it is not limited to speech only; Collaborative Communication encompasses all aspects of communications (speaking, writing, body movement and signals) and it is focused on personal and professional growth of both mentors and mentees.

#### **5.3.1 Purpose of Collaborative Communication in mentoring.**

This study found, the purpose of Collaborative Communication from mentees’ perspective was to get an opportunity to share their views and opinions without fear of backlash, it was an opportunity to decide what they wanted to learn, it was an opportunity to decide how they wanted to learn, and it was an opportunity to be equal partners in their personal growth and professional development. The mentees achieved these goals in collaborative partnerships where mentees felt safe to ask for help in form of “demonstration, explanation, segmenting learning, or providing hints or cues” so that the knowledge, thus, constructed in collaboration would stay with mentees for a longer period of time (Stanulis & Russell, 2000, p. 78).

On the other hand, Collaborative Communication from mentors’ perspective was to get an opportunity to share their experiences and tell their stories in ways that encourage mentees to participate in constructing knowledge by learning from mentors, while focusing on their individual issues and finding solutions with mentors’ guidance. This study found that in Collaborative Communication and in Mentor-

Directed Communication the mentors actively participated in mentees' growth process. In this research, Collaborative Communication was found to be the most successful pattern of communication in mentoring because mentors and mentees worked as a team, shared responsibilities, reflected together and learned from each other (Carroll, 2005; Mann & Tang, 2012; Young et al., 2005). Hence, Collaborative Communication was found to be essential for personal and professional growth of mentor-mentee dyads.

### **5.3.2 Focus of Collaborative Communication in mentoring.**

In Ch-2, I discussed in detail different types of support mentors can provide such as, psychosocial support and career support (Kram, 1985); psychosocial support, instrumental support and networking support (Tenenbaum et al., 2001); emotional support and professional support (Rippon & Martin, 2006); instructional and organizational competences (Hennissen et al., 2010), as focus of mentoring.

In this study, focus of Collaborative Communication was on providing mentees with psychosocial support and career support as described by Kram (1985), and networking support as mentioned by Tenenbaum et al. (2001), and organizational competences as suggested by Hennissen et al. (2010). The definitions of psychosocial support and career support provided by Kram (1985) were elaborate and covered all aspects of support required by mentees in Collaborative Communication. Kram (1985) defined Psychosocial support as "those aspects of a relationship that enhance an individual's sense of competence, identity, and effectiveness in a professional role" (Kram, 1985, p.32), and career support as sponsorship, information sharing, coaching, career strategizing, exposure and visibility, job-related feedback, protection, challenging work assignments all included in career support. In this research, the mentors engaging in Collaborative Communication were providing both psychosocial and career support to mentees on need be basis. Some mentees were, initially, more interested in psychosocial support, and later when their immediate concerns were addressed, then they asked for career support, and vice versa.

Furthermore, in Collaborative Communication mentors did not limit their support to one particular topic or aspect, hence, in Collaborative Communication the mentors were interested in providing networking opportunities for mentees, and they were also interested in enhancing mentees' organizational competence. And because

the foci of Collaborative Communication were diverse, the relationships were considered successful as both mentors and mentees were satisfied. On the other hand, in Shallow Communication some mentors restricted their support to career support only, which became a case of conflicted interests, hence, an unsatisfying experience for mentors and mentees. Therefore, this study suggests Collaborative Communication with diverse foci for successful mentoring experience.

### **5.3.3 Stages of Collaboration Communication in mentoring.**

Kram's (1985) four sequential phases of mentoring: Initiation, Cultivation, Separation and Redefinition were not found at the same time scale in a two year program at a university level mentoring program. In a university level-mentoring program designed for a span of two years, mentees met their mentors for 4-6 meetings, mostly once per semester or according to the availability of mentors. Although, the four stages were not seen as described by Kram (1985), however, three out of four were observed, albeit they were squeezed in limited time allocations.

For instance, Initiation period (6-12 months) was shortened to first meeting and in some rare cases it took two meetings. Cultivation (2-5 years) was reduced to 2/4 meeting supplemented with emails and phone contact. During Separation phase the mentees and mentors were content to go their own way, as they both understood that the mentoring period is for a two-year duration. For the Redefinition phase, neither mentors nor mentees shared plans of contacting each other for a different type of relationship like friendship. They were well aware of the professional nature of their relationship and they wanted to keep it professional during the mentoring period. And after the two-year mentoring period they expressed no desire to initiate friendship. The mentors stated that they were available not as friends but as senior colleagues if mentees needed help in future, but they did not think it would be structured regular meetings. And the mentees also did not see it as friendship or felt the desire to be friends with their mentors after the mentoring program ends.

However, in Collaborative Communication though the Redefinition phase does not exist but mentors and mentees were not strictly opposed to the idea of meeting in future. In fact, some mentees who experienced Collaborative Communication expressed a desire to keep in contact with their mentors. And the mentors engaging in Collaborative Communication were also open to meeting with

mentees but neither had concrete plans yet. In short, this study concurs that mentoring period can be viewed in phases, and understanding these phases could make mentoring process easier to understand for mentors as well as mentees. Although, this study adds to the present literature that mentoring phases differ from program to program, therefore, an open-minded understanding of the phases of mentoring could be helpful for mentors and mentees to quench any ambiguity as to the future of mentoring relationship in mentors' and mentees' minds.

#### **5.3.4 Narrative style in Collaborative Communication in mentoring.**

In this research, the success of Collaborative Communication was based on many factors, and one major aspect was the different type of communication styles available to mentors. In Ch-2, I presented an overview of the types of communication in mentoring, such as instructional and developmental narrative (Orland-Barak & Klein, 2005), and therapeutic, apprenticeship and reflective (Crasborn et al., 2011; Orland-Barak & Klein, 2005).

This study found that Collaborative Communication is a combination of these different types of communications in mentoring, to name a few. The study found that in Collaborative Communication mentors used Orland-Barak & Klein's (2005) developmental narrative, where focus of communication was to cater to mentees' needs. Interestingly, the developmental narrative in Collaborative Communication was developed using Fish (1995) concept of *asking*, which leads to discovery, as compared to *telling* the mentee, which is demonstration of knowledge (p.132; italics used as in original text). Collaborative Communication did not serve as an avenue for mentor to transmit their knowledge to mentee; it was rather an avenue to discover with mentee what they need and how they want to be helped while understanding and respecting the context, as no knowledge is generated without context (Dobrowolska & Balslev, 2017). On the other hand, in Shallow Communication and Mentee-Directed Communication instructional narrative was used. In Mentor-Directed Communication when mentors used developmental narrative the communication changed to Collaborative Communication and when instructional narrative was used it remained Mentor-Directed Communication with less impact.

In this study, Collaborative Communication was also found to be therapeutic and reflective (Crasborn et al., 2011; Orland-Barak & Klein, 2005), though,

apprenticeship was not found in Collaborative Communication. It was observed that when mentees required psychosocial support mentors used a combination of therapeutic and reflective style, and for career support mentors used reflective style in communication in mentoring. In some cases of Mentor-Directed Communication when mentors used reflective style the communication changed to Collaborative Communication, where as in Mentee-Directed Communication and Shallow Communication apprenticeship style was observed. In short, the study found Collaborative Communication to be a combination of different types of communications in mentoring such as developmental, therapeutic, and reflective, which ensured success of mentoring session.

### **5.3.5. Tools of communication in Collaborative Communication in mentoring.**

The dialogues skills presented in Crasborn et al. (2011) study, as discussed in Ch-2, were found to be used in Collaborative Communication. These supervisory skills were:

“showing attentive behaviour (1), asking an open starting question, asking for concreteness (3), summarizing feeling (showing empathy) (4), summarizing content (5), showing genuineness (6), completing sentence/clarifying question (7), confronting (giving feedback, summarizing inconsistencies, utilizing the here and now) (8), generalizing (asking for similar situation) (9), helping in making things explicit (10), helping in finding and choosing alternatives (11), asking for something new (12), giving information (13), giving opinion/assessing (14), and giving advice/instruction (15).” (p.501)

It was found that these skills used as communication tools in Collaborative Communication helped mentors and mentees to construct productive knowledge.

Moreover, this research found that emails and phones calls also served as successful communication tools. Due to busy work schedules, work demands, nature of the mentoring programs, and low meeting frequency many mentor-mentee dyads observed weak mentoring relationship. However, mentors and mentees engaging in Collaborative Communication reported that they kept in contact via emails and phone calls, and the mentor-mentee dyads engaging in Collaborative Communication felt connected.

### **5.3.6 Features of Collaborative Communication in mentoring.**

Collaborative Communication is defined by three main features progress, versatility and reflective approach. This research confirmed Snoeren et al. (2016) statement that mentoring relationship is “neither static nor linear” (p.3); rather, it is progressive in nature. The study concurs with Stanulis and Russell (2000) study that mentors and mentees using Collaborative Communication were constantly working to nurture an effective mentoring relationship where both feel comfortable to share their vulnerabilities. The research found that they achieved this goal by using strategies such as reciprocal activities, reflections, and being versatile among other that work effectively for both of them. For instance, the study found mentor-mentee dyads engaging in Collaborative Communication were using reciprocal activities as Pfund, Byars-Winston, Branchaw, Hurtado, and Eagan (2016) study has suggested, “planning, acting, reflecting, questioning, and problem-solving”; to build, as Crasborn et al. (2008) study has proposed, a collaborative environment. This strategy made Collaborative Communication successful because as Richter et al. (2013) study has posited mentees who receive constructivist mentoring may not need close guidance and frequent interaction.

Furthermore, the research found that due to its evolving nature mentors and mentees in Collaborative Communication were versatile. Literature on mentoring is full of evidence that every mentee has different needs, which changes with time as mentee grow and develop in their chosen paths (Devos, 2010; Martinez, 2004). This study in concurrence with Chun, Sosik, & Yun, (2012) study found that mentors in Collaborative Communication and in Mentor-Directed Communication were found to be versatile and were fine with providing career related support, psychosocial support as well as role modelling. They changed and adjusted their strategy as per mentees and sometimes per mentoring session, if need be, to accommodate mentees according to their requirements due to their unique individual situations because as Devos (2010) study has established one criterion for all irrespective of their needs and circumstances would lead to unproductive relationships. Similarly, mentees in Mentee-Directed Communication were found to be versatile changing according to their mentors to get maximum benefit from the mentoring sessions.

Moreover, the essence of Collaborative Communication in mentoring is in mentors and mentees being reflective, as Holloway and Gouthro (2011) study has

described that being reflective is questioning, reflecting and taking initiatives. Mentees participating in Mentee-Directed Communication also displayed reflective qualities as well as mentors engaging in Mentor-Directed Communication. However, in both Directed Communications the effect was lost due to one-directional efforts. On the other hand, in Collaborative Communication mentees were the active partners in learning as they reflected and collaborated with their mentors making the mentoring experience valuable for both mentors and mentees (Franke & Dahlgren, 1996). This study proved that Collaborative Communication in mentoring provides a healthy environment for reflective practices as well as brought to light the environments that would not be suitable for reflective practices such as in Directed Communications and Shallow Communication where reflective practice initiated by mentor was seen as a pressure from mentor. And reflective practice initiated by mentee was met by disinterested short responses from mentors resulting in mentee dissatisfaction.

#### **5.4 Influences on Collaborative Communication in Mentoring**

The patterns observed in this study were direct result of influences on communication in mentoring. Thus, it is safe to say that intrapersonal, interpersonal, and external influences shaped communication in mentoring. In order to understand the patterns of communication in mentoring it is important to understand the influences.

##### **5.4.1 Intrapersonal influences on Collaborative Communication.**

In research literature, information on intrapersonal influences that impact communication in mentoring leaves a lot to be desired. This research study is a step towards rectifying this lapse by agreeing with Hudson (2013) and Rippon and Martin (2006) studies that factors influencing mentoring could be personal and professional skills. However, this study goes further and defines personal and professional skills affecting communication in mentoring. The personal skills included motivation, initiative and persistence /expectations, and professional skills included commitment, competence and curiosity. This study suggests that these personal and professional skills form the core essentials required for effective communication in mentoring, hence, I call them Core Essentials of Mentoring Communication (CEMC). And these

CEMC's have intrapersonal influence on mentors and mentees, which affects mentoring relationships.

#### ***5.4.1.1 Intrapersonal influences of CEMC.***

In this study, multiple personal skills supplementing CEMC were found to have intrapersonal influence on mentors' and mentees' person while in mentoring relationship. For instance, personal skills like insight, enthusiasm, positive attitude Bird (2001); trustworthiness (Hodges, 2009); modesty and humbleness (Allen & Eby, 2008); and open minded (Hobson et al., 2009), had intrapersonal influence on mentors and mentees, which affect them personally and later their mentoring relationship.

However, impact of mentors' and mentees' personal skills (motivation, initiative and persistence/expectations) was found to be significant. The study found that mentor-mentee dyads engaging in Collaborative Communication were personally motivated to make mentoring relationship a success. The motivation was reflected from their willingness to take initiatives (actions) to engage in the Collaborative Communication, and their persistence to continue to grow and develop by actively participating in Collaborative Communication. Where as, mentor-mentee dyads engaging in Shallow Communication were found lacking in motivation, initiatives and persistence and in Directed Communications it was conditional. Thus, the study found personal skills had positive influence on experiences of mentor-mentee dyads using Collaborative Communication and negative on Shallow Communication. Moreover, this study adds to the existing literature on mentees that mentee initiative is an important aspect that affects communication in mentoring. It was found that lack of mentee initiative among others such as lack of mentee honesty, lack of openness, lack of trust, made communication a Directed Communication or Shallow Communication.

Similarly, this research found that professional skills comprising commitment, competence and curiosity had intrapersonal influence on mentors and mentees. In this study, mentor-mentee dyads engaging in Collaborative Communication were found individually committed to their professional development, they were aware of professional competencies required to achieve professional development and they were competent to work towards it, and they were curious to explore all possible growth and development options. While, mentor-mentee dyads engaging in Shallow

Communication were found lacking in commitment, competence, and curiosity, and in Directed Communications it was conditional.

Additionally, other professional skills as leadership, flexibility, tolerance, teamwork capabilities as Schatz-Oppenheimer (2016) study has suggested also had intrapersonal influence on mentors and consequently on communication in mentoring. However, an interesting professional skill that was found in mentors and mentees engaging in Collaborative Communication and Directed Communications was *focus* of mentors and mentees. The impact of intrapersonal influence of focus on mentors and mentees was evident from display of clarity of thought, and confidence of what they wanted to know and discuss with their mentors and mentees, respectively.

Moreover, in Collaborative Communication and Mentee-Directed Communication, it was found that mentees were clear about their needs and they considered “encouragement, support, open relationship and feedback” as Izadinia (2015, p. 4) study has established as significant factors in mentoring relationship. And mentees wanted discussion, performance feedback, and reflective practices as seen in Shernoff et al. (2011) study. Also, mentees engaging in Collaborative Communication did not shy away from constructive criticism; they wanted their mentors to be challenging as well as supportive by showing personal interest in the mentees growth in collaborative and supportive relationship (Bower, 1998, p. 596; Izadinia, 2015; Rajuan, Beijaard, & Verloop, 2007). Thus, making mentoring a successful experience for them. And in Mentor- Directed Communication, mentors displayed intrapersonal influence of focus when they offered to help mentees and they were open to all topics and issues which mentees wanted to discuss, hence, making the mentoring experience a satisfied experienced for them when their mentees reflected satisfaction.

#### ***5.4.1.2 Intrapersonal influences of perceptions.***

On perceptions of mentors, Leshem (2014) has stated “how mentors perceive their roles is of great importance for their own professional development and consequently for promoting their identities as professional mentors within their educational institutions” (p.270). And on perceptions of mentees, Feiman-Nemsar & Buchmann (1987) study has posited mentees could be influenced by their “particular understandings and dispositions that influence their approaches to experience and their capacities to learn from it” (p. 256). Interestingly, in this study mentors’ and

mentees' perception of satisfaction related to successful mentoring was also an intrapersonal influencing factor. This study concurs with Pfund et al. (2016) study that mentoring relationship was successful if mentees achieve their goals towards personal and/or professional growth and development. In this research, the mentees engaging in Collaborative Communication reported being satisfied with respect to their own queries and mentor initiated steps, which reflected that Collaborative Communication in mentoring was successful. Though, the study also found that multiple mentees in Mentee-Directed Communication reported satisfaction once they understood their mentors' style and limitations, and redirected their queries in the direction that the mentors may respond effectively. Thus, in Collaborative Communication and Mentee-Directed Communication satisfaction on mentees' part was due to personal and professional growth they experienced during the mentoring period, and they could foresee its long-term effects on their personal and professional success, which had a positive impact on them personally.

Furthermore, mentors also experienced intrapersonal influence of feeling satisfied accompanied with benefits such as professional recognition, sense of accomplishment, altruistic gains, or simply as stated in Bozionelos (2004, p. 26) study for finding "an outlet for passing their accumulated knowledge and wisdom", that influenced them in a positive manner. This research found that most mentors were satisfied with their mentoring sessions. The mentors using Collaborative Communication and Mentor-Directed Communication in mentoring were satisfied due to their initiatives to help the mentees. Although there was one example of Mentor-Directed Communication where mentor was not satisfied as the mentee was not responding to mentor's initiatives to engage in effective communication and mentoring.

On the other hand, mentors engaging in Shallow Communication or participating in Mentee-Directed Communication were also satisfied due to their *understanding* that by merely being mentor and responding to mentees questions superficially with short and vague answers they were helping mentees. It is important to note here that mentees know what they want. Mentees want mentors "to 'demonstrate knowledge', to 'show good examples', to 'criticize the bad things' and to 'tell the truth in an encouraging way'" as elaborated in a study by Kullman (1998, p. 480). Also, Chun et al. (2012) study has revealed that majority of mentee valued

career related support. For mentees their mentors were the source of support and practical advice (Carter & Francis, 2001; Marable & Raimondi, 2007; Richter et al., 2013). The research found that the mentees were not satisfied with half-hearted efforts even if mentors felt satisfied, hence, the mentors were found to be engaging in Shallow Communication or participating in Mentee-Directed Communication.

#### **5.4.2 Interpersonal influences on Collaborative Communication.**

In this research, interpersonal influences were found to be one of the factors creating patterns in communication in mentoring. The commonly found interpersonal influences in this study were interpersonal influences of CEMC and roles mentors and mentees adopt. I found that negative impact of interpersonal influences was visible mostly in Shallow Communication and some times in Directed Communications, where as positive impact of interpersonal influences was visible in Directed Communications and Collaborative Communication. It is interesting to note that mentor-mentee dyads using Collaborative Communication were successful in avoiding negative impact of interpersonal influences by working collaboratively towards eliminating or minimizing these influences.

This research found that other interpersonal influences on mentors and mentees were poor communication, lack of trust, and lack of appreciation from mentors (Bell & Treleaven, 2011; Hodges, 2009); as well as mentors personal attributes, practices and lack of mentor training could influence communication in mentoring could influence mentoring relationship (Hudson & Hudson, 2010; S. M. Johnson & Kardos, 2005). Also, mentors' conduct in mentoring sessions, such as disinterested in conversations or ignoring mentees, lack of commitment from mentors, lack of expertise or manipulative behaviour, or negative attitude which strained the relationship due to unmet expectations of mentees and caused mentees to adopt less concerned attitude (Lillian T. Eby et al., 2010; Lillian T. Eby & Lockwood, 2005). This research concurs and adds that all these aspects comprise Shallow Communication and effects of these interpersonal influences were also found in Directed Communications.

Furthermore, this study also found interpersonal influences such as openness of mentor to discuss different topics, honesty of the mentor and mentors' lack of initiative also impacted communication in mentor-mentee relationship. Feldman et al.

(2010) have discussed that mentors decisions regarding topics were different from what mentees need to discuss, was not found relevant in this study, due to the set up of the mentoring programs that made mentees in charge of the meetings, therefore, the decision of topics was mentees' choice. However, in Shallow Communication it was observed that mentors avoided topics by giving superficial advise for topics they did not want to respond to, leaving mentee feeling dissatisfied.

#### ***5.4.2.1 Interpersonal influences of CEMC.***

The study also contributes to existing literature by suggesting that interpersonal influences of CEMC affect communication in mentoring. It was observed in this study that personal and professional skills of mentors were found be affecting mentees and vice versa in Directed Communications. In Mentee-Directed Communication the personal and professional skills of mentees were influencing the way mentees would respond in mentoring relationship to a certain extent. And in Mentor-Directed Communication the personal and professional skills of mentors were influencing the way mentees would respond in mentoring relationship. Interestingly, it was observed in the study that influence of successful mentors' CEMC could shift Mentor-Directed Communication to Collaborative Communication.

One aspect of CEMC that had strong interpersonal influence on communication in mentoring was motivation. One motivation for mentors was altruism. Hu et al. (2014) on mentors' altruism have stated mentors' dispositional altruism can predict mentoring support because altruistic individuals tended to show concern for others and engaged in helping behaviour without strong situational and interpersonal incentives (Allen & Eby, 2003; Bozionelos, 2004). The study found that all mentors reported that they wanted to be mentors for altruistic reasons and confirming their reasons was not the scope of the study, therefore, their claim was taken at face value. Out of all the mentors only one mentor accepted that being recognized as a mentor by mentees in different forums generates feelings of wellbeing. It is interesting to note that despite the altruistic nature of mentors' reasons, mentors were found to be engaging in Shallow Communication or Mentee-Directed Communications which contrasts with mentors' stated reasons.

Allen (2003) study has found that mentors whose motivation is self-enhancement provide career mentoring. Where as, mentors whose motivation is

intrinsic satisfaction they will provide psychosocial mentoring. This study found that the divide was not as clear as Allen (2003) has suggested instead the study found that generally the mentors were open to all topics; however, how motivated they were to help was reflected from quality of their answers. If mentors wanted to help in a specific issue their answers were in-depth and if mentors were not interest in a topic their answers were superficial and short. The study found that mentees were apt at recognizing cues about mentors' motivation from mentors' communication. Mentees engaging in Collaborative Communication had the space to read cues and rearrange sessions to gain maximum benefit by engaging in collaborative inquiry and critical reflection with mentors (Carter & Francis, 2001; Richter et al., 2013; J. Wang & Odell, 2002). On the other hand, mentees in Shallow Communication and Directed Communications lacked this laxity, as in most cases they either went with the mentors wishes reflected through the role they selected to adopt or accepted superficial advise on topics of mentors' choice.

Furthermore, many researchers have claimed that commitment is fundamental factor in relationships that reflected pro-relationships leaning of the participants (Finkel, Rusbult, Kumashiro, & Hannon, 2002; Poteat, Shockley, & Allen, 2009). Drigotas, Rusbult, and Verette (1999) study has posited when both participants had similar level of commitment it was called mutuality of commitment and it reflected a healthy relationship, where as when one participant was more committed than other or less committed than other it was called non-mutuality of commitments and it reflected an imbalanced relationship. This study found commitment of mentor-mentee dyads as an important factor. In Collaborative Communication mutuality of commitment was evident, and healthy relationships were observed, whereas in Shallow Communication and Directed Communications non-mutuality of commitment and consequently imbalanced relationships were observed.

Poteat et al. (2009) in their study have argued that commitment in mentees is a factor that may attract and help retain mentors. This study found evidence that mentor commitment was associated with relationship satisfaction supporting Poteat et al. (2009) claim that mentors showed satisfaction when they encountered mutual commitment level or they were more committed (Allen & Eby, 2008; Finkel et al., 2002). In Collaborative Communication commitment level of mentees was an important aspect; where as, Directed Communications were clear examples of either

mentor or mentee commitment. And, in Shallow Communication the lack of commitment evidently led to unproductive relationship.

#### ***5.4.2.2 Interpersonal influences of mentors' and mentees' roles.***

Allen (2007) has proclaimed mentoring a “dyadic and complex process” where both mentors and mentees play a role and have responsibilities, and success of the relationship depends on both (p.123). St-Jean & Audet (2009) study has also towed the same line stating that mentors' roles affect learning. Their study found that mentoring roles had great influence on the mentoring relationship and consequent learning. This study concurs with their finding, in fact it adds to their results by stating that the roles mentors and mentees choose to play affect the outcome of communication in mentoring and specially the role mentors play has major influence.

Moreover, Hennissen et al. (2010) in their MERID model have presented four different mentor roles in mentoring dialogues: initiator, imperator, advisor and encourager. In Collaborative Communication and Mentor-Directed Communication mentors adopted the roles of initiator, advisor and encourager, among others such as supporter, role model, facilitator, assessor, collaborator, friend, trainer, protector, colleague, evaluator, communicator (Ambrosetti & Dekkers, 2010; Neary, 2000); to accommodate mentees' needs at that specific time and place, which made mentees responsive to mentors. This versatility of mentors to adopt multiple roles made Collaborative Communication in mentoring a successful event especially the ability of mentors to adopt the role of co-learners which was most successful role and it encouraged mentees (Kochan & Trimble, 2000).

Furthermore, this study found that how mentors defined their roles affected the communication patterns in mentoring. Mentors using Collaborative Communication and Mentor-Directed Communications were found to be in roles of mentors using mentoring as a nurturing concept to promote and encourage learning accompanied with guiding and teaching (Hodges, 2009). On the other hand, in Shallow Communication and Mentee-Directed Communication mentors were found to be in the roles of advisors, these mentors shied away from need of the time to adopt different roles and they left mentees dissatisfied. And the mentees responded by either adopting roles of advisees or they tried to salvage the relationship by putting extra effort to make this relationship helpful for them in any capacity. This study found one

case where a mentor was an imperator, an intimidating and unapproachable person (Gray & Smith, 2000; Hennissen et al., 2010); and mentee immediately after first meeting severed the mentoring relationship.

Moreover, as Bird (2001) study has stated mentors play a vital role in instilling professional values and establishing ethical standards in the mentees. Successful mentors achieved this by adopting the role of a critical friend who asked challenging questions, who provided fresh look to familiar issues and offered constructive critique to mentees who were the professionals in training and who were in the process of developing their own identities (Kutsyuruba, 2012). The mentors' role of critical friend was also observed in Collaborative Communication and Mentor-Directed Communication, where mentors used reflective strategies with mentees to help them in their growth. And, on the other hand, mentors in Shallow Communications and Mentee-Directed Communication were seen in roles of advisors, where they were either passive to mentees' ideas or were focused on comforting mentees rather than challenging and enhancing their competences (Hennissen et al., 2010).

In short, this study found mentor-mentee dyads playing roles of mentors and mentees (according to definitions already defined in Ch-2) engaging in Collaborative Communication as opposed to mentors and mentees taking up roles of advisors and advisees who were found engaged in Shallow Communication. And in Directed Communications, Mentee-Directed Communication was observed when mentees took up role of mentee but mentors were selecting role of advisor, similarly, Mentor-Directed Communication was observed when mentors took up role of mentor but mentees were opting for role of advisee.

#### ***5.4.2.3 Interpersonal influences of mentors' conduct.***

Interpersonal influences of mentors' conduct were also observed in the study. The literature on mentoring has emphasised mentors' need to be versatile, that is, mentors needed to change their mentoring practices according to mentees' needs. However, this study was successful in showing that when mentors do not change their style, or content of their talk according to mentees' needs, and when the mentees lacked confidence or communication tools (Feldman et al., 2010); then the communication between mentors and mentees became ineffective leading to Shallow Communication or Directed Communications.

Moreover, communication in mentoring was also affected by mentors networking efforts on behalf of mentees. This study revealed that when mentors made efforts the mentees felt connected and taken care of, therefore they were forthcoming in engaging in Collaborative Communication. Eby and Lockwood (2005) in their study have reported that they did not find evidence of mentors taking steps to increase visibility of mentees. On the contrary, this study found that mentors engaging in Collaborative Communication were taking steps to enhance mentee visibility by introducing mentees to future employers or contacts in social events, also to connect mentees to valuable contacts that could help mentee in research, and sometimes referring mentees to relevant person. In support of Eby and Lockwood (2005) this research found that in Shallow Communication and Mentee-Directed Communication mentors were not interested in taking initiatives such as providing networking opportunities to mentees. However, it was also interesting to note that in Mentor-Directed Communication one mentor was willing to provide networking opportunities but shied away from taking networking initiative due to mentee's disinterest proving Eby et al. (2010) claim that mentors could distance themselves if their efforts were not reciprocated.

#### **5.4.3 External influences on Collaborative Communication in mentoring.**

The study found many external factors influencing Collaborative Communication in mentoring. Factors such as selection process (Hobson et al., 2009); shortages of mentors (Johnson & Kardos, 2005); work overload and performance issues etc. among other external influences as discussed in Ch-2. The study found selection process of mentors as major external influence on mentees, hence, affecting communication in mentoring as it influences mentees' motivation to participate effectively in mentoring. Although literature on mentoring does talk about motivation and its impact on mentoring yet this is the first time a study relates the effects of selection process impact on motivation; hence, making this study a valuable addition to literature in mentoring.

Selection process in mentoring is a complex process and it has far reaching effects. Mentors, for instance, as Zellers, Howard, & Barcic (2008) study has advised should not be supervisors of mentees to avoid conflict of interest. Sometimes mentor selection is carried out by program organisers, who select mentors based on their

expertise and interests because mentees might find it difficult to find mentors based on their needs or might not have access to mentors (Bell & Treleaven, 2011; Feldman et al., 2010); and some programs offer mentees the choice of selecting their own mentors.

In this study four selection processes were found Self-Satisfactory, Prescribed-Satisfactory, Self-Dissatisfactory, and Prescribed- Dissatisfactory based on data. Carter and Francis (2001) have claimed that self-selection pairing is likely to be more successful as compared to formal mentoring despite the fact that formal mentoring pair may also be successful. On the contrary, this study found that authority over selection process does not guarantee best match in concurrence with Ragins, Cotton, & Miller (2000) study in which they did not find support for positive impact of mentees and mentors participation in self-selection process as compared to program selection process.

Bell and Treleaven (2011) study has stressed that when mentees were involved in the process of mentor selection they became comfortable and felt encouraged to develop successful mentoring relationship. This study found that it was true in the beginning, however, many mentee were found to be engaged in Shallow Communication and Mentee-Directed Communication because their self-selected mentors did not chose the role mentees were expecting them to adopt. In fact, Bell and Treleaven (2011) have stated that their result were different from Boice (1992) study where it was found that selection by program or selection by self all produced similar results. This study supplemented Boice (1992) results on the basis that although selection process impacted communication in mentoring initially, however, it was what happened after the selection process that mattered. As this study found mentor-mentee dyads engaging in Collaborative Communication were more satisfied irrespective of self or prescribed selection.

Furthermore, other external influences such as frequency and duration of mentoring, and right of decision-making were also studied in this research. St-Jean & Audet (2009) have posited in their study that mentoring frequency and duration affect the learning. This research found that frequency of meeting was neither indicator of successful mentoring nor it influenced mentoring. Allen (2007) study has also reported that results regarding meeting frequency and successful mentoring are

inconsistent. I found that mentees did not relate success of mentoring with meeting frequency; they related it to the content of advice and the mentoring environment. The study found that mentees using Collaborative Communication were happy for meeting their mentors even once a semester as they respected mentors' time constraints and they were satisfied with the quality of mentoring they were receiving. On the other hand, mentees in Shallow Communication and Directed-Communications did not ascribe the ineffectiveness of their relationship on meeting frequency.

Moreover, in mentoring literature right of decision-making was considered an influencing factor. Crasborn et al. (2011) study has stated that in mentoring programs initiative and decision-making regarding topics in mentoring dialogue are mentors prerogative, which in many cases was a factor influencing mentees. However, in this study the mentoring programs included were for postdocs and in these programs it was the mentees who were given the opportunity to initiate the contact with mentor and decide upon the topic to be discussed. The study found that even with such opportunity communication in mentoring relationships varied from Collaborative Communication to Shallow Communication due to the response mentors gave to topics chosen by mentees to be discussed in the mentoring sessions, that is in-depth answers to superficial answers, respectively.

Other important external influencing factors discussed in literature are related to selection criteria. Allen, Poteet, and Russell (2000) in their study have stated that some times mentors selected mentees based on their ability to perform rather than mentees' needs, that is, preferring high performing mentee over average performing mentees. This study did not find evidence that mentors were agreeing to be mentors to mentees based on mentees' performance. As stated earlier all mentees were well-accomplished researchers, on the other hand, all mentors insisted to have an initial meeting to see similarities of interest for better communication and mentoring relations. Research has suggested that similarity between mentors and mentees was a predictor of a strong relationship, similarity as in personality, values, and attitude of the mentoring pairs (Eby et al., 2013; Hu et al., 2014; Ortiz-Walters & Gilson, 2005). It is interesting to note that participants did not report a single case of mentor refusing to mentor a particular mentee due to personality or work ethic differences though many Shallow Communication and Directed Communications cases were observed. On the other hand, in one case, a mentor accepted a previously known mentee based

on her performance, common field, admiration for mentee, and similarity to mentor's strong work ethics (Janssen, Vuuren, & Jong, 2014). They reported Collaborative Communication, which reinforces claims in research literature that mentors like mentees with technical knowledge as well as "motivated, strong work ethic, competence, and learning orientation" (Allen, 2007, p. 129; Kram, 1985).

Moreover, Allen (2007) has also stated that Byrne's (1971) similarity-attraction paradigm, that is, mentors are attracted to mentees similar to them such as same gender, does not always hold true. In this research, gender of mentor was not found to be an influencing factor. The study concurs with Allen (2007) and Salas-Lopez et al. (2011) suggestions that the gender of mentors is not important but similarity of interest between mentors and mentees is important. The study found that gender preference was observed only when mentee wanted advice on work-life balance, however, many mentees who wanted female mentors as first choice did not report dissatisfaction over getting male mentor. In fact, one case of mentor (male) – mentee (female) dyad, where mentee initially wanted a female mentor, was found engaged in Collaborative Communication as they worked on work-life balance and career issues, and the mentee reported complete satisfaction due to in-depth and well thought responses of the mentor. Therefore, gender of the mentor was not important.

Carter and Francis (2001) have argued that age / experience difference between mentor and mentee should not be great. This study found conflicting results regarding perceptions about mentor-mentee age difference. A few mentees wanted young mentors because they believed young mentors having gone through the process of attaining professorship would give more useful advice. On the other hand, for some mentees age was not an issue. This research found that neither Collaborative Communication nor other patterns were affected by the age of mentors. The mentors who had attained professorship a while ago were competent to guide mentees and in some cases they connected mentees to people who could provide up-to-date advice, hence, this study found it was not age rather motivation of mentors to help mentees which affected communication in mentoring.

Bradbury (2008) has posited that communication between mentors and mentees could be a source of conflict. Sometimes the advice of the mentor did not resonate with the mentee beliefs and hence was ignored by mentee, which might lead

to unpleasant situation. Furthermore, mentees may also disregard the advice if they find it too prescriptive or redundant. I concur with Bradbury (2008) as both cases were observed in the study; the mentee in first scenario discontinued mentoring relationship and in the second case resulted in Shallow Communication.

Furthermore, the study also found a case of Shallow Communication where communication broke down due to mentor's and mentee's desire to avoid conflict. The mentor did not want to play the role of evaluator rather wanted to stay in the advisory capacity, which strained the relationship (Bradbury, 2008). Bradbury (2008) has also argued that one of the hindrances in communication between mentor and mentee is that sometimes mentors find giving direct advice to mentees as disrespectful. However, this study found no evidence of this claim. Similarly, he has stated that sometimes mentees refrain from asking for help to save face, as they do not want to be thought of as incompetent. There was no evidence to support this claim either, as mentees in Collaborative Communication and Mentee-Directed Communication were seeking advise in all topics they deemed necessary, where as in Mentor-Directed Communication and Shallow Communication they refrained from asking due to dissatisfaction from superficial responses of mentors. It is important to note here that mentees in these programs were well-accomplished females; therefore, it was more a case of dissatisfaction rather than face-saving, and the claim may hold true for beginner teacher.

## **5.5 Conclusion**

In this chapter, I discussed in detail the four patterns of communication namely, Collaborative Communication, Shallow Communication, Mentor-Directed Communication and Mentee-Directed Communication. I presented Collaborative Communication in mentoring while comparing and contrasting it with other patterns in light of research literature. I conclude that Collaborative Communication is the most effective communication pattern in mentoring as it empowers mentors and mentees to grow and develop personally and professionally.

## **Chapter 6- Conclusion**

### **6.1 Introduction**

I started the research with a focus to understand mentoring in universities. While reading literature on mentoring I asked myself how communication in mentoring affects mentoring relationships, and hence started this journey into unknown, the journey that was successful in the end. In this chapter, I conclude this journey by giving a summary of research, research limitations, pedagogical limitations and future directions of the research.

### **6.2 Summary of Research**

This research was focused on communication in mentoring and its impact on mentoring relationship. I conducted semi-structured in-depth interviews with professors and postdocs in mentoring program across Germany to collect data for this research. The data was analysed using Grounded Theory, particularly a combination of Charmaz (2014) and Glaser and Strauss (1978). During the course of this research, based on the data, I discovered that mentoring relationships are affected by patterns of communications used in mentoring session between mentor-mentee dyads. These four patterns of communication are Collaborative Communication, Shallow Communication, Mentor-Directed Communication, and Mentee-Directed Communication. Out of these four I found Collaborative Communication to be most successful pattern in mentoring and Shallow Communication as the ineffective communication pattern in mentoring. This study also found that two major influences create these patterns, the roles and the selection process. This research would enable mentors and mentees to understand factors hampering their mentoring relationships and it has also opened new avenues for future research in communication in mentoring.

### **6.3 Research Limitations**

This research adds valuable information to existing body of literature on mentoring; however, there were a few research limitations, which I will discuss here.

The first major limitation to the study was the reluctance of participants to join the study. I found convincing professors and postdocs to participate in the study a challenging task. During the course of data collection I sent seven waves of participation invites to different mentoring programs in Germany and out of these seven rounds I managed to find only twenty-five professors and postdocs. Similarly, another participant-related limitation was lack of mentor-mentee dyads willing to participate in the study which left me with limited option of interviewing either a mentor or a mentee who ever was willing to participate. It further complicated the issue because then I had no opportunity to observe pairs in mentoring sessions.

Fortunately, I did turn these limitations to my advantage by following ways, first the number of participants was twenty-five which for a single researcher was sufficient so I gave full attention to these twenty-five participants and conducted successful in-depth interviews. Second, the pairs were not available but it also meant that I was interviewing a wide range of mentees and mentors independent of each other, which added depth to the data. And third, since I was unable to observe mentor-mentee dyads I was getting authentic account without a farce, that they might act out in presence of a researcher observing their every move. I acknowledge that I used the limitations as strengths and it helped in strengthening the study.

Furthermore, another limitation in this research was time. A topic as important as communication in mentoring deserves to be studied in a longitudinal study. I conducted a cross-sectional study because I was on a three-year stipend and I had to complete the study with in the given time frame, give and take a few months. However, this is a topic that should be above any time bar.

Moreover, I found that the characteristics of a certain people define how they behave in a certain situation. This realization was brought to light when many mentees, all European citizens groomed in German academia, in this study clearly stated that they did not see or expect friendship with mentors in future, which was different from the literature which reflected a desire in mentees to continue a relationship after mentoring ended. This topic was out of this study's scope so I had to let it be, but it brought to front the limitation of generalization of the results. Further investigation is required to clarify if these patterns of communications in mentoring are a characteristic approach of German academia or academia in general.

#### **6.4 Future Directions**

The study has been a step forward toward understanding communication in mentoring; however, there is still much to be learned. A few suggestions for future research are as follow:

This research is focused on patterns of communication in mentoring and influences that instigate the patterns to form; however, this research was unable to capture other aspects that might contribute to changes in communication and its impact in mentoring for example role of institutional policies, etc. Hence, further research should be conducted to enhance our understanding of communication mentoring.

Participation of professors and postdocs could only be increased if studies show positive impact of participation on participants; therefore, studies should be conducted to show case positive impact of participation to encourage participation in studies.

The topic communication in mentoring as discussed earlier requires that it should be studied in length, hence a longitudinal study is required to study long term effects of mentoring on mentors and mentees in general, and how it impacts their career choices in particular since many mentees wanted mentoring for career development.

The study was conducted in a specific context, that is, female mentees in organized mentoring programs for postdocs in Germany; it would be interesting to study the patterns of communication in different settings, contexts and with different sets of participants.

#### **6.5 Concluding Remarks**

Learning is process that never stops; I witnessed this reality while going through the stages of this research. I began this journey to understand communication in mentoring and learned that patterns exist in communication in mentoring and these patterns are formed due to multiple influences. This information will be valuable for mentoring dyads to make mentoring relations successful, and it has also opened up new avenues of research.

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Table 62	<i>Selection Process Self- Satisfactory in Communication in Mentoring</i>
Table 63	<i>Selection Process Self-Dissatisfactory in Communication in Mentoring</i>
Table 64	<i>Selection Process Prescribed-Satisfactory in Communication in</i>
Table 65	<i>Selection Process Prescribed-Dissatisfactory in Communication in</i>
Table 66	<i>Influencing Factors Role of Mentor in Communication in Mentoring</i>
Table 67	<i>Influencing Factors Selection Process in Communication in Mentoring</i>
Table 68	<i>Collaborative Communication in Communication in Mentoring</i>
Table 69	<i>Mentor-Directed Communication in Communication in Mentoring</i>
Table 70	<i>Mentee-Directed Communication in Communication in Mentoring</i>
Table 71	<i>Shallow Communication in Communication in Mentoring</i>

### III. Participation Invite



seit 1558

## Friedrich-Schiller-Universität Jena

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**Fakultät für Sozial- und Verhaltenswissenschaften**  
**Institut für Bildung und Kultur**

Friedrich-Schiller-Universität Jena • 07737 Jena

Lehrstuhl für Erwachsenen-  
bildung Am Planetarium 4  
07743 Jena

**Frau**  
**Henna Qureshi**  
Candidate for PhD'19  
Friedrich Schiller University  
Fulbright Alumni '11  
MS.Ed.(UPenn/USA)  
M.A. Eng. (Pak ) Telefon: 177 8323 866  
E-Mail: q.henna@gmail.com

Jena

### Participation Invite

**Dear Mentors:**

**Communication in mentoring** from mentees' perspective is a scarcely investigated field and dearth of literature in this field is eye opening. It is of utmost importance that mentees feelings, ideas, thoughts, and suggestions should be represented in literature. My focus is on mentees perspective, however, a study without mentors' input would be incomplete. **Your voice can help improve the system developed to support our mentees.** Therefore, I invite you to be part of this much-needed research on communication in mentoring.

**Title of Study:**  
Emerging professors' perception of communication in mentoring: a case study.

**Researcher:** Henna Qureshi

**Purpose of data collection:** PhD Dissertation

**Background Information:**  
The study is being conducted by Henna Qureshi, a PhD candidate in the Institut für Bildung und Kultur at Friedrich-Schiller-Universität, Jena, Germany.

**Purpose of the research:**  
The purpose of this research is to explore emerging professors' perception of their communication with senior professors during mentoring sessions.

**Procedures:**  
If you agree to be in this study, you will participate in an interview.

**Interview:**  
The interview will be a 1 hour session (approximately). I will invite you to share your experiences of communication with your mentee in the mentoring relationship. I may ask you to explain rapport between you and your mentee. And I may also ask questions stemming from our conversation.  
You are not obligated to answer my questions. If you are unwilling to answer any question, simply say so and we will move on. You may stop or withdraw from the interview at any time.

**Audio Recording:**

The interview session will be audio recorded. I will personally handle audio recording of the session. The recording will be destroyed after five years. The recordings will be stored in a professional manner ensuring your anonymity and safety.

**Risks and Benefits of Being in the Study:**

The study involves minimal risk. The data generated from your interview participation will be published, however, pseudonyms will be used to ensure your anonymity.

This is a neglected research area and your participation will benefit experiences of many emerging professors. Your participation in this study will add unique perspective to the research on mentoring and it will provide you with an opportunity to see and understand your mentoring relationship anew.

**Confidentiality:**

The audio recording of will be kept in locked file and only the researcher would have access to them. The recordings will not be duplicated/made copies of/ made public without your written permission and only to be used for academic and research purposes. Your views in transcribed data would be included in published work under pseudonym to ensure confidentiality.

**Right to Refuse or Withdraw:**

If you decide to participate in this study, you are free to withdraw at any time. If you decide not to participate, your decision will be kept confidential.

**Contacts and Questions:**

Should you have any questions you may contact me and my research supervisor at the information given below:

Researcher: Henna Qureshi  
Phone number: 177 8323 866  
Email address: [q.henna@gmail.com](mailto:q.henna@gmail.com)

Research Supervisor: Univ.-Prof. Dr. Käthe Schneider  
Phone number: 0049-3641/945321  
Email address: [k.schneider@uni-jena.de](mailto:k.schneider@uni-jena.de)

Thanks.

Warm regards,  
Henna Qureshi  
Candidate for PhD'19  
Friedrich Schiller University (DE)  
NUST-FDPA Scholar'18 (PK)  
Fulbright Alumni '11  
MS.Ed. (UPenn/US)  
M.A. Eng. (PK)

## IV. Consent Form

 seit 1558	<b>Friedrich-Schiller-Universität Jena</b>
Friedrich-Schiller-Universität Jena • 07737 Jena	<b>Fakultät für Sozial- und Verhaltenswissenschaften          Institut für Bildung und Kultur</b>
	Lehrstuhls für Erwachsenen- bildung
	Am Planetarium 4 07743 Jena
	Telefon: 1778323866
	E-Mail: q.henna@gmail.com
	Jena, Date:

## Consent Form

*Please read this form and ask any questions that you may have before agreeing to be in this study.*

**Title of Study:**  
Emerging professors' perception of communication in mentoring: a case study.

**Researcher:** Henna Qureshi

**Purpose of data collection:** PhD Dissertation

**Background Information:**  
The study is being conducted by Henna Qureshi, a PhD candidate in the Institut für Bildung und Kultur at Friedrich-Schiller-Universität, Jena, Germany.

**Purpose of the research:**  
The purpose of this research to explore emerging professors' perception of their experiences with senior professors in a mentoring program, also, to study the use of communication in mentoring and its impact on emerging professors professional development.

**Procedures:**  
If you agree to be in this study, you will participate in an interview.

**Interview:**  
The interview will be a 1 hour session (approximately). I will ask you to share your experiences in the mentoring relationship with your mentor. I will also ask you to explain rapport between you and your mentor. You may be asked about your feelings in regard to the mentoring program. I may also ask other related questions stemming from our conversation.

You are not obligated to answer my questions. If you are unwilling to answer any question, simply say so and we will move on. You may stop or withdraw from the interview at any time.

**Audio Recording:**  
The interview will be audio recorded. I will personally handle audio recording of the session. After the data is collected and transcribed, the recording will be kept for approximately five years before it is destroyed. The recordings will be stored in a professional manner ensuring your anonymity and safety.

**Risks and Benefits of Being in the Study:**  
The study involves minimal risk. The data generated from your interview will be published, however, pseudonyms will be used to ensure your anonymity.

This is a neglected research area and your participation will benefit experiences of many emerging professors. Your participation in this study will add unique perspective to the research on mentoring.

**Confidentiality:**  
The audio recording will be kept in locked file and only the researcher would have access to them. The recordings will not be duplicated/made copies of/ made public without your written permission and will only be used

for academic and research purposes. Your views in transcribed data would be included in published work under pseudonym to ensure privacy.

**Right to Refuse or Withdraw:**

If you decide to participate in this study, you are free to withdraw at any time. If you decide not to participate, your decision will be kept confidential.

**Contacts and Questions:**

Should you have any questions you may contact me and my research supervisor at the information given below:

Researcher: Henna Qureshi

Phone number: 177 8323 866

Email address: [q.henna@gmail.com](mailto:q.henna@gmail.com)

Research Supervisor: Univ.-Prof. Dr. Käthe Schneider

Phone number: 0049-3641/945321

Email address: [k.schneider@uni-jena.de](mailto:k.schneider@uni-jena.de)

**Participant's Statement of Consent**

I have read the information provided above. I have had the opportunity to ask questions about the information provided above and my questions have been answered to my satisfaction. I consent voluntarily to be a participant in this study

\_\_\_\_\_  
Signature of the Participant

\_\_\_\_\_  
Date

**Statement by the researcher**

I have provided accurate information to the potential participant, and I have made sure that the participant understands the procedure.

I confirm that the participant was given an opportunity to ask questions about the study, and all the questions asked by the participant have been answered correctly and to the best of my ability. I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

A copy of this consent form has been provided to the participant.

Henna Qureshi

\_\_\_\_\_  
Signature of the Researcher

\_\_\_\_\_  
Date

## V. Interview Guide

 seit 1558	<b>Friedrich-Schiller-Universität Jena</b>	
Friedrich-Schiller-Universität Jena • 07737 Jena	<b>Fakultät für Sozial- und Verhaltenswissenschaften          Institut für Bildung und Kultur</b>	
	Lehrstuhl für Erwachsenenbildung	Am Planetarium 4 07743 Jena
	<b>Frau          Henna Qureshi</b> Candidate for PhD'19 Friedrich Schiller University Fulbright Alumni '11 MS.Ed.(UPenn/USA) M.A. Eng. (Pak )	Telefon: 1778323866 E-Mail: q.henna@gmail.com
		Jena, Date: 28.04.2016
<b><u>Interview Guide</u></b>		
Q.1. Please share why you decided to join the mentoring program?		
Q.2. Please describe one of your mentoring sessions, walk me through it.		
Q.3. How would you describe communication with your mentor?		
Q.4. How do you participate in this mentoring session?		
Q.5. How would you describe yourself as a mentee?		

## **VI. Acknowledgements**

At the end of this journey, I want to acknowledge those who helped me in successful completion of my PhD. First and foremost, I am thankful to ALLAH Almighty for providing me with opportunity, and giving me strength and wisdom to sail through different phases of this journey.

In professional capacity, I want to say a profound thank you to Prof. Dr. Käthe Schneider for giving me a lifetime opportunity. She believed in me, and her trust kept me going through these years. Prof. Schneider supported my research work with ingenious, constructive, and knowledgeable suggestions and comments, and allowed me space to grow as a researcher, enlightening, and encouraging me to move forward. She also showed depth of character with her care and understanding of my personal circumstances. I feel blessed that I was granted an opportunity to work with you. Thank you.

I am extremely grateful to Prof. Dr. Alexander Gröschner for supporting and encouraging me during the course of my studies. I appreciate your encouragement, feedback and most importantly your time that you generously gave me. I am also thankful for your valuable comments and guidance during the course of PhD and especially thesis writing, as it enabled me to achieve my goals in timely fashion.

I am also most thankful to Ms. Annette Wagner-Baier from Mentoring Program of Friedrich Schiller University Jena for her continued support in making this research possible.

I want to thank my colleagues, old and new, in the chair of Adult Education whose support, encouragement, feedback, and comments helped me through out my PhD. I want to extend my thanks Graduate Academy, Friedrich Schiller University Jena for providing unlimited assistance during my PhD. And most importantly, I am grateful to NUST Pakistan for providing me this great opportunity and I am hopeful I will be productive resource for NUST community.

On a personal note, I want to thank my friend & mentor Dr. Zuleeha Unlu for her perennial encouragement, support, and undying faith in my abilities. You were always there for me and I don't have words to express my gratitude, except may Allah bless you with best in this world and akhira, Aameen. I also want to thank my 'girl

gang', Annie, Amama, Seerat, Fatima and Dr. Sidra Gull, thanks for making me laugh, and giving me love and affection when I needed it most. You girls kept me sane and I pray for your happiness in both worlds, Aameen.

Last but not the least, I want to thank my family for their continuous love, support, and encouragement through out my career and especially my academic endeavours aboard. Thank you Mom and Dad, your Skype vigils sustained me through these difficult years. A special thanks to my kids Ali and Maleeha, and a very heart felt thanks to my late father-in-law who supported my dream.

Atif Riaz Qureshi, there are no words to express my love and gratitude for you, except to say, I am blessed that I have you.

## VII. Curriculum Vitae

### Personal information

Name: Qureshi, Henna  
 Date of birth: 14.05.1978  
 Place of Birth: Karachi, Pakistan  
 Marital Status: Married  
 Present address: Schlegelstr. 6, 411, 07747, Jena

### Awards

2014-2018 NUST FDPA Scholarship  
 2009-2011 Fulbright Scholarship

### Education

2015-2018 PhD  
 Friedrich Schiller University Jena, Germany  
 2011 M. Phil (Equivalence) Higher Education Commission Pakistan  
 2009- 2011 MS. Education, TESOL, GPA: 3.81  
 University of Pennsylvania, U.S.A  
 1998-2000 MA English Literature & Language, *1<sup>st</sup> Div*  
 Quaid-e-Azam University, Islamabad, Pakistan  
 1996-1998 B.A. English/Psychology, *1<sup>st</sup> Div*  
 University of the Punjab, Lahore, Pakistan

### Work and Research Experience

2018	Friedrich Schiller University Jena Introduction to Mentoring	Adjunct Faculty
2016-2018	Thuringia International School Weimar, Germany	Adjunct Faculty
2013-2015	Foundation University, Pakistan Course: Second Language Acquisition Course: Sociolinguistics Course: Research Methodology Course: TEFL	Adjunct Faculty
2011-2015	Fatima Jinnah Women University Course: Business English Course: Communication Skills Course: Composition and comprehension	Adjunct Faculty

2010-2011	Nationalities Services Center Philadelphia, USA Reading and Writing Skills of immigrants in USA, Integration in US Society, Communication issues	ESL Teacher
2010	Samuel Powel Elementary School Philadelphia, USA Reading and Writing Skills of Immigrant students in US schools Influence of L1 on L2 Learning Role of Feedback in Learning	Reading & writing Internship
2009-2010	Penn Alexander School Philadelphia, USA TPR in Primary Education Reading Comprehension Issues and Immigrant Students Process writing	ESL Internship
2006-2009	Roots School System	English Language Teacher

**CONFERENCE PAPERS**

2018	Participating in academic research: A necessity in higher education	The European Association for Research on Learning and Instruction (EARLI) Sig.04, Justus Liebig University, Giessen, Germany, 29-31 Aug, 2018
2014	Understanding the impact of rubric Discussion on students' uptake of Feedback	International Conference Engaging the Learners Rethinking Education Fatima Jinnah Women University, 10-12 Feb 2014
2013	Revisiting feedback: understanding students' perception of revisiting feedback	10 <sup>th</sup> Annual Fulbright & Humphrey Alumni Conference, LUMS, 22- 24 Nov 2013

**SEMINARS**

2010	Language Skills: Reading Skills-SQ3R Education	31st Annual Ethnography Research Forum
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	As Student Researcher	Penn GSE, Feb 26-27, 2010
2010	Education on Wheels-focus group Group leader & Presenter focus group	2010 Chicago Fulbright Enrichment Seminar, Chicago, March, 2010

**WORKSHOPS**

2013	Language Skills: Reading, Writing, Speaking & Listening	Little Star Academy, Pakistan
2013	Language Skills: Reading, Writing, Speaking & Listening	Young Scholars Academy Pakistan

**CERTIFICATES**

2012	IELTS	Band -8
2008	GRE	ABOVE 60%
2008	TESOL	106/120
2008	NTS GAT General Exam, Pakistan	Distinction

**ACHIEVEMENTS**

- Distinction in Debates and Speech Competitions
- Active participation host/comparing in various college functions
- Class representative, F.G college for Women, 1997
- President Cultural society, F.G college for Women, 1998
- *Teacher of the Month*, Roots School System
- DAWN – Spelling Bee, coach of the *Regional Champion* 2008
- DAWN – Spelling Bee , *National Championship* 2008 – coach of the 1<sup>st</sup> Runner-Up

**AFFILIATIONS**

- 1.1. Fulbright Alumni Association
- 1.2. State Alumni Association
- 1.3. Penn Alumni Association
- 1.4. Penn MSA Organization

**PROFESSIONAL SKILLS**

- Experienced in managerial tasks with proficient administrative skills
- High personal integrity and can relate-to and create trust
- Articulate, confident and persuasive team-member
- Proficient spoken English communication and presentation skills
- Able to motivate and encourage exceptional performance

**LANGUAGES**

English	Bilingual proficiency
Urdu	Mother tongue
Punjabi	Bilingual proficiency
German	Basic knowledge

### **VIII. Ehrenwörtliche Erklärung**

Hiermit erkläre ich, dass mir die Promotionsordnung der Fakultät für Sozial- und Verhaltenswissenschaften der Friedrich-Schiller-Universität bekannt ist, ich die Dissertation selbst angefertigt habe und alle von mir benutzten Hilfsmittel, persönlichen Mitteilungen und Quellen in meiner Arbeit angegeben sind,

mich folgende Personen bei der Auswahl und Auswertung des Materials sowie bei der Herstellung der Dissertation unterstützt haben:

#### **Prof. Dr. Käthe Schneider, und Prof. Dr. Alexander Gröschner**

die Hilfe eines Promotionsberaters nicht in Anspruch genommen wurde und dass Dritte weder unmittelbar noch mittelbar geldwerte Leistungen von mir für Arbeiten erhalten haben, die im Zusammenhang mit dem Inhalt der vorgelegten Dissertation stehen,

dass ich die Dissertation noch nicht als Prüfungsarbeit für eine staatliche oder andere wissenschaftliche Prüfung eingereicht habe und dass ich die gleiche, eine in wesentlichen Teilen ähnliche oder eine andere Abhandlung nicht bei einer anderen Hochschule als Dissertation eingereicht habe.

Jena,

Unterschrift des Verfassers