READING OF PATIENT CASE NOTES BY YEAR-ONE STUDENT NURSES DURING CLINICAL PRACTICE IN A MALAYSIAN TEACHING HOSPITAL

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ABSTRACT

This qualitative case study investigated how novice year-one student nurses learned to read and interpret their professional text, the Patient Case Notes (PCN) written by members of the multidisciplinary health team in the deliverance of safe patient care. Student nurses are expected to read PCN as they enter their workplace community of practice for clinical practice. Literature provides evidence on the significance of the PCN in ensuring safe care for patients. However, there appears to be only a cursory mention of student nurses learning to read the PCN during their initial Clinical practice in their workplace. Thus the aim of the study is to contribute to the field of knowledge specifically at understanding the novices' initial textual experiences, the literacy practices associated with the reading of the PCN and their interpretive efforts. The sources of data included observation field notes, official documents, and semi-structured interviews with eight key participants and informed individuals. Lave and Wenger's (1991) theory formed the theoretical framework of the study as it provided the lens to investigate and understand the nature of the novices' reading within the context of a specific workplace community of practice, namely the hospital setting. Data analysis and findings were thus discussed in relation to Lave and Wenger's (1991) theory. The findings revealed the complexity of using the authentic PCN for the novice users when they transitioned into their workplace for clinical practice. The complexity pointed to a gap in their in-class and workplace literacy practices. Findings also showed that the novices' reading and interpretive efforts of the PCN were facilitated through their legitimate peripheral participation in routine nursing events, pedagogical mechanisms of the hospital and nursing college, individual competence of expert members of their Community of Practice, their own learning strategies and shared knowledge with their peers. The insights from the study also contribute to

existing literature in the areas of curricula practices for novices' transitioning into their workplace Communities of Practice for learning the practice of nursing specifically in acquiring the literacy practices of their discourse community related to the reading of the PCN.

Pembacaan Nota Kes Pesakit oleh Jururawat Pelatih Tahun Satu Sewaktu Latihan Klinikal di Sebuah Hospital Pengajaran Malaysia

ABSTRAK

Kajian kes kualitatif ini menyelidik bagaimana jururawat pelatih tahun satu belajar untuk membaca dan menginterpretasikan teks profesional mereka, Nota Kes Pesakit ditulis oleh ahli-ahli pasukan kesihatan dalam pelbagai disiplin dalam pengendalian penyampaian penjagaan pesakit yang selamat. Jururawat pelatih dijangkakan boleh membaca Nota Kes Pesakit apabila mereka melangkah ke dalam amalan komuniti jururawat di tempat kerja mereka semasa latihan klinikal. Kajian literatur menunjukkan terdapat bukti yang signifikan kepada kepentingan Nota Kes Pesakit dalam memastikan keselamatan penjagaan pesakit. Namun kurang kajian yang memberikan perhatian kepada bagaimana jururawat novis tahun satu belajar untuk membaca Nota Kes Pesakit semasa latihan klinikal pertama mereka di tempat kerja. Oleh yang demikian, tujuan kajian ini adalah bagi menyumbang secara spesifik kepada pemahaman pengalaman tekstual awal novis, amalan literasi yang berkaitan dengan bacaan Nota Kes Pesakit dan seterusnya usaha interpretif mereka. Sumber data kajian merangkumi nota lapangan pemerhatian, dokumen rasmi dan temu bual separa struktur, dari lapan partisipan penting dan individu-individu lain yang berpengetahuan. Teori Lave dan Wenger (1991) membentuk kerangka teoretikal kajian kerana teori ini menawarkan kanta untuk menyiasat dan memahami bentuk bacaan novis dalam konteks situasi komuniti tempat kerja spesifik iaitu di latar klinikal hospital. Analisis data dan dapatan dibincangkan berdasarkan Teori Lave dan Wenger (1991). Dapatan kajian menunjukkan kompleksiti penggunaan Nota Kes Pesakit autentik bagi pengguna novis sewaktu transisi ke tempat kerja mereka untuk latihan klinikal. Kompleksiti tersebut merujuk kepada jarak antara amalan literasi di dalam kelas dan

di tempat kerja mereka. Dapatan kajian juga mendedahkan pembacaan dan usaha interpretif novis telah dipermudah melalui penyertaan periferi jururawat pelatih dalam amalan komuniti mereka seperti peristiwa-peristiwa spesifik rutin kejururawatan, mekanisme pedagogi hospital dan kolej kejururawatan, kompetensi individu ahli pakar dalam kalangan amalan komuniti mereka, strategi pembelajaran kendiri mereka dan perkongsian pengetahuan dengan rakan sebaya. Di samping itu, kajian ini memberikan sumbangan kepada literatur sedia ada di bidang praktis kurikulum untuk novis bertransisi dari bilik darjah ke arah tempat kerja bagi mempelajari amalan kejururawatan, khasnya bagi memperoleh amalan literasi wacana komuniti mereka berkaitan dengan bacaan Nota Kes Pesakit.

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List of Symbols and Abbreviations

Symbols /Abbreviations	Indications
COHES	College of Allied Health Sciences
CoP	Community of Practice
CS	Change of Shift
ESP	English for Specific Purposes
Grp.Int	Group Interview
IV	Intravenous infusion
L2	Second language
LPP	Legitimate peripheral participation
NBS	Nursing Behavioral Sciences
NLG	The New London Group
NLS	New Literacy Studies
Obs	Observations
P.Obs Int	Post Observation Interview
PCN	Patient Case Notes
SPM	Sijil Pelajaran Malaysia
STAT	The Latin word for immediately

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Chapter 1 Introduction

Background of the Study

Embedded in the social structures of most workplace settings is the professional text of the workplace. An example of a professional text in hospital settings is the Patient Case Notes, also sometimes referred to as Medical Records. A supposition is that every piece of workplace writing draws on various traditions and interactions of social and economic relations among the participants (Ivanič, 1998). Understanding the literacy and literacy practices of workplaces thus can be complex due to the social context and multiple traditions on which they are rooted in (Harran, 2009). Nevertheless, it has been recognised that gaining access to workplace literacy practices could facilitate novices in carrying out social goals and in maintaining workplace cultures (Bawarshi & Reiff, 2010).

In preparing novices for workplaces, a deduction is that classroom settings of colleges should also prepare them for the specific textual and literacy practices of their prospective workplaces. Papen (2005) reminds us to continue understanding reading and writing of domains such as workplaces through the lens of decontextualized skills is likely to result in missing out on significant aspects that facilitate meaning making. Whereas, in the social practice view, literacy is conceptualised as an activity where people read and write with the intention to perform a specific purpose where literacy is part of a broader activity. Papen (2005) argues that these activities constitute the context which facilitates meaning making when people are engaged in reading and writing. Yet, research literature on workplace learning reveals that it is the school-like decontextualized, discrete skills with very little relevance to workplace literacy that are still the focus of most language classes in educational settings (Eraut, 2006; Street,

2001). These researchers inform that literacy conceptualised as a socially, situated practice also includes having learned a set of social practices related to a set of signs that are inevitably plural. This diversity allows engagement with diverse notions of both reading and writing emerging as a result of contemporary social and technological changes (Barton & Hamilton, 1998). The implication of this is that the different meanings and purposes of literate activities would depend on factors such as the technologies involved, the specific context and for what ends (Barton, 1994; Papen, 2005). Papen argues it is these activities that constitutes context which facilitates meaning making when people are engaged in reading and writing.

The social practices view of literacy conceptualised as an activity that people engage in order to achieve a specific purpose, has currently gained a firm footing in the field of literacy (Hull, 1993; Street, 1995). Diverse new notions of reading and writing that are emerging have implications for novices when they transition from classroom settings into complex professional workplaces for practicums for a duration of time (Billett, 2009). Reading at the workplace is seen as a social practice. Like Papen (2005), researchers (e.g., Folinsbee & Hunter, 2011) also claim workplace reading is shaped by the context and social activities that facilitate the specifics of tasks of a particular job.

In the context of nursing education, participating in the target workplace literacy practices during clinical practice is inevitable (Gimenez, 2008; Parks, 2001). As part of student nurses' learning, an initial workplace literacy that they are required to participate involves the reading of the Patient Case Notes (PCN). The PCN, a typical professional workplace text is a compilation of text types, written by the multidisciplinary health professionals about patients admitted in medical facilities. It includes texts such as, the Medication Kardex, Doctors' Case Notes and Reports of

diagnostic test results. Novice nurses need to learn to read multiple text types containing both objective and subjective information that are measured and observed on the patients' health status and care management (Potter & Perry, 1999). The quality of care delivered to patients therefore, is dependent on the exchange of information between members of healthcare professionals. And this is conveyed via the PCN. Besides the truncated forms of written language, information in these texts is also communicated through multiple modes such as graphs, visuals and markings. The nurse as part of the health team is responsible for coordinating the different levels of expertise without fragmenting it (Basavanthappa, 2009). Taken together, an implication of this is that the reading and interpretation of the PCN has to be situated within the social context of the participatory practices of the workplace. This is a crucial workplace literacy event that has to be done prior to planning nursing strategies by staff nurses and novice year-one nurses in clinical settings.

Gee (2008) informs that to facilitate sense making of an authentic text, the reading event should take place within the "domain's design grammar," which legitimises materials in the domain (p. 139). An assumption is the domain inherently situates authentic learning. In the context of nursing, the educational preparation of the novices primarily takes place in the classrooms while the clinical learning environment is based on the actual workplace realities of the hospital settings (Ousey, 2000). In a hospital, novice student nurses have to read the authentic materials of the domain as preparation for clinical practice. Clinical practice is when student nurses are placed in clinical settings, under the supervision of nursing staff and nurse tutors, to practise skills learnt in the classrooms of nursing colleges. During this phase, their learning experiences are sequenced from simple to complex as student nurses progress through the duration of their three year nursing programme. This learning in the workplace,

where the clinical practice takes place, symbolises the initial educational preparation of the professional journey of a nurse (Nash, Lemcke, & Sacre, 2009). Additionally, it is also the nurturing ground for the novices to learn work-related language and literacy practices of clinical documentation (Ammenwerth et al., 2001), consolidate nursing skills (Orland-Barak & Wilhelem, 2005) and form occupational identity (Newton, Billett, & Ockerby, 2009).

The educational preparation of student nurses to participate in their workplace at the point of graduation, however continues to be globally debated (Andrews & Roberts, 2003; Spouse, 2001; Wheeler, Cross, & Anthony, 2000). Issues that continue to be an area of concern are related to the quality and guidance from practitioners (Ranse & Grealish, 2007). While another issue concerns the limited understanding of what constitutes target workplace practice of nursing education (Cheek & Jones, 2003). Similarly, others (Korthagen & Kessels, 1999; Spouse, 2001) agree that without knowledge of what takes place in workplace settings, the theory-practice gap may not be bridged. In line with these contentions, the question of how best to facilitate year one student nurses' learning while in the workplace remains a challenge to both nurse academics and clinicians (Ranse & Grealish, 2007).

Reading of written professional texts of workplaces such as the Patient case Notes (PCN) is conceptualised as nested in the sociocultural practices of their workplace context. Given this, there appears to be an accepted way of using the multimodal written texts in the PCN. A deduction is that the generic skills-based reading which is often the focus of the nursing language classroom may not be readily applied by the novices into the real life context where the varied text types of the PCN along with its attendant literacy practices are socially situated. Additionally, review of literature continues to highlight occurrences of adverse events, medication errors,

patient safety risks (Friesen, White, & Byers, 2008) suggesting breaches in the transfer of critical information from the PCN. As Friesen et al. (2008) state, one among the many sources of the problems for nurses stems from misinterpreting "notes from another provider" (p. 302). Among the suggestions put forward to address the problem is to provide novices with "supplemental information" to participate in pivotal events (Friesen et al., 2008). An inaccurate notion commonly held regarding teaching and learning is that it is synonymous across contexts (Billett, 2004). Hence, the need to carry out an in depth investigation into how year- one student nurses read, interpreted and utilized their workplace text amidst the other complexities of workplace learning seemed crucial. Essentially, this study argues that the circumstances of the workplace learning environment, practices and interactions have a significant role in shaping the novices' learning of a specific textual literacy through their transitioning experience into their community of practice.

Statement of the Problem

In an attempt to bridge the educational and clinical experience, research on nurses has examined various issues pertaining to language and literacy learning both at the classroom level and at the workplace. Two lines of research: namely one that explored the academic writing skills of nurses and another that focused on how the PCN was utilised at the workplace were identified in trying to locate a gap in the literature. Studies on writing investigated issues such as: academic writing experiences of nurses (Hamill, 1999; Whitehead, 2002) and identifying taxonomy of genres in academic writing courses (Gimenez, 2008). While research on the PCN at the workplace explored issues pertaining to medication management by graduate nurses (Aitken, Manias, & Dunning, 2006); accuracy of nurses' interpretations of clinical data (Lunney, 2008); accuracy of nursing texts in PCN (Paans, Sermeus, Nieweg, & Van

Der Schans, 2010) and the readiness of registered nurses to provide evidence-based practice (Pravikoff, Pierce, & Tanner, 2004), these studies highlight the high prevalence of inaccuracies in nursing texts in areas such as medication management and conspicuous gaps in their skills such as for identifying, accessing, retrieving and using the research evidence in providing for best care for patients (Pravikoff et al., 2004). Despite presenting nurse academics an ongoing challenge, several researchers (Council, 2004; Leki, 2003; Parks, 2001; Stewart, Mort, & McVeigh, 2001) claim an area of research that has not received sufficient attention is student nurses' workplace literacy. Even those few abovementioned studies that focused on literacy practices have been largely restricted to studying the demands of academic writing of student nurses at different levels into the nursing programmes or that of graduate nurses (Gimenez, 2008; Parks, 2001; Whitehead, 2002). A deduction is, these studies did not illuminate the challenges faced by the novice year-one student nurses as they grappled with the textual and literacy practices of their discourse communities during clinical practice. A neglected aspect in the studies that investigated the PCN was the dimension of reading.

Reading has been indicated in facilitating for example in the acquisition of workplace literacy practices (Parks, 2001) and in accessing and evaluating evidence to provide safe care for patients (Lunney, 2008; Pravikoff et al., 2004). One target literacy practice that year-one student nurses are expected to demonstrate at their workplace during clinical practice involves interpreting the PCN. Yet, less is known about how year- one student nurses entering their actual workplace for their first clinical practice learned to read and interpret the texts in the PCN written by expert health professionals. The abovementioned studies did not shed light on the novices' initial

transitioning experiences of reading and interpreting data contained in PCN and their complex participation in the practices of their community.

A search for studies on novice student nurses' learning in the Malaysian context too indicated there were no specific studies on how novice student nurses learned to read their professional workplace text during their initial clinical practice. The need for this study was also based on the findings of two Master's theses. The first study by Wan (1998) examined the learning needs of staff nurses in the critical care unit of a large teaching hospital, in delivering total patient care in life and death situations. The findings revealed despite the criticality of the nature of the job only a few of the participants saw the need to participate in continuing educational programmes for enhancing their professional competence. A more significant finding revealed that the lukewarm interest of the participants to participate in continuing educational courses was linked to poor reading habits of a big majority of the respondents. Wan (1998) advances the view that the finding has significant implications for critical reading at the workplace in maintaining their professional competency and recommends that the reading experiences of the nurse be developed on a continuum throughout the career of nurses, beginning from learning that takes place in classrooms of nursing. This finding highlights the need for nurturing reading and the literacy practices of the community and the issues of transferability of this learning across contexts.

In the second study, Choy (2009) examined the clinical learning experiences of student nurses during clinical practice. Although a combination of factors affecting novices' learning process is revealed which included emotional and psychological challenges, issues such as how the novices learned the complex textual and literacy practices of their workplace were not given sufficient attention. Additionally, little is

also known about the personal experiences of the student nurses as they strived to participate in nursing activities and literacy practices embedded in workplace literacy events. The lack of investigations specifically on the challenges year- one student nurses face when having to interpret PCN on the point of entry into their Community of Practice at the workplace points to the presence of a gap in the related studies. Thus, there is a need to understand how year- one student nurses interpreted and utilised the PCN both in order to participate in the socio cultural practices of their Community of Practices and in achieving patient outcomes.

Purpose of the Study

The focus of the study was on understanding how student nurses learned to read, interpret their professional workplace text: the PCN and carried out the literacy practices emanating from this crucial literacy event. In addition, the study also examined potential issues related to student nurses' interactions with other individuals as they learned to participate in the target literacy practices and organized activities of their workplace community of practice. Thus, the second intent of this study was to understand the experiences of the novices and the competencies they needed when they had to use the PCN during their initial transitioning into their workplace Community of Practice (hereafter CoP).

Research Objectives

This study aimed at achieving the following research objectives:

1. To explore the experiences of year-one student nurses when using the Patient Case Notes during their initial transitioning into the workplace
2. To investigate how year-one student nurses read and interpret the PCN during their Clinical practice in the workplace.

Research Questions

The following research questions guided the study:

1. What are the experiences of Year-one student nurses when using the Patient Case Notes during their initial transitioning into the workplace?
2. How did Year-one student nurses' interpret the Patient Case Notes during their Clinical practice at the workplace?

Both research questions one and two are linked to the workplace literacy events that were investigated in this study. A basic element of a literacy event is when text becomes integral to the participants' "interactive and interpretive a process" (Heath, 1983, p. 930). The literacy event began when the participants who were considered novices at the periphery of central expert healthcare practices within the hospital found an opportunity to read the PCN of the patients assigned under their care. Due to the nature of the text types contained in the PCN, a deduction was that reading of this text goes beyond just comprehending what is written. Instead it requires accurate interpretation and acting upon them. In analysing the literacy event, research question one captures the overall personal experiences of the participants of the larger context of the literacy event where the PCN was central, at the point of entry into their workplace CoP. Whereas, the second research question breaks down the components of the literacy events of Change of Shift and Medication Serving and focused on the novice student nurses' interpretation (i.e., reading and making sense of the data in the PCN). The next section discusses the theoretical framework that provided the lens to analyse and interpret the raw data obtained from various sources of data collection.

Theoretical Framework

The theoretical framework for understanding how year one student nurses learned to acquire competence in reading the PCN, a target workplace literacy

practice, is derived from Lave and Wenger's (1991) theory of Situated Learning, namely the concept of Communities of Practice (CoP). The elements of this theory that guided this study are as follows. A viewpoint on understanding learning in (CoP) is defined as Legitimate Peripheral Participation (LPP). According to Lave and Wenger (1991) although novice learners are positioned within the CoP which accords them legitimacy, they actually exist on the boundaries or the periphery of the community. Both peripherality and legitimacy are posited as necessary for moving to fuller participation in the activities of the CoP. These two concepts have been beneficial in throwing light on the phenomenon of the novice student nurses' learning. This learning develops as they situate themselves in the central arena of the activities of the "centripetal participation of the learning curriculum of the ambient community," Lave and Wenger (1991, p. 100). For this learning to take place, novices have to apprenticeship themselves to expert members of their community. The expert members, the tutors, the staff nurses and the doctors are members of the overlapping CoP at the workplace. This means the novices have to be given access to engage in the activities of the existing practice and to negotiate and interact with the experts members of the community at the workplace. Although, having asserted that both peripherality and legitimacy are key concepts, these issues are subject to issues of accessibility of the learners to "participating roles in the expert performances," (p. 17). Thus, understanding how the LPP is organised to accommodate and support the novice student nurses both legitimately and peripherally is pivotal in understanding their learning in their workplace community.

Another key perspective that underscores learning viewed as a situated activity is that learning is embedded in the evolving relationships between people and the settings in which these activities are conducted (Lave & Wenger, 1991). Learning in a

CoP is claimed to be dependent on the nature of the expert-novice relationship. This relationship is said to exist on a continuum; a full participant who is considered an expert within the community on the one end and at the other end is the novice, the legitimate peripheral participant (Campbell, Verenikina, & Herrington, 2009). Based on Lave and Wenger (1991), for learning to happen, each partner in this arrangement: both the novice student nurses and the expert (e.g., tutors/ staff nurses, doctors) ought to accept the positioning of the other. This unique facet of learning viewed as LPP is characterized "as evolving form of membership" (p. 53). The concept of membership, besides implying a commitment to the discipline, is also linked to shared competence, engaging in joint activities, helping each other (Campbell et al., 2009; Wenger, 2010). The LPP also informs that even novices (i.e., student nurses) need to be given opportunities to participate in their CoP in reduced ways before acquiring specific knowledge and skills (Lave & Wenger, 1991). This participation is believed to be crucial in the evolving identity of the learners within their CoP. However, some researchers (Campbell et al., 2009; Lave & Wenger, 1991) conceptualise transitioning from being a legitimate peripheral participant to that of a full member of the CoP as challenging. The novice nurses' legitimate peripheral participation at the point of entry into the centripetal practices of the expert members of the medical and nursing community could be depicted respectively.

The two circles depicted in Figure 1.1 could be said to represent the locations of peripheral participation whereby the inner circle represents the target community of practice that consist of expert members of the community, i.e. tutors, staff nurses and doctors whereas the outer circle represents the point of entry where novices begin to participate in the target practices. In this study, the point of entry is symbolized as "Y" where the student nurses begin their clinical nursing practices in Week One.

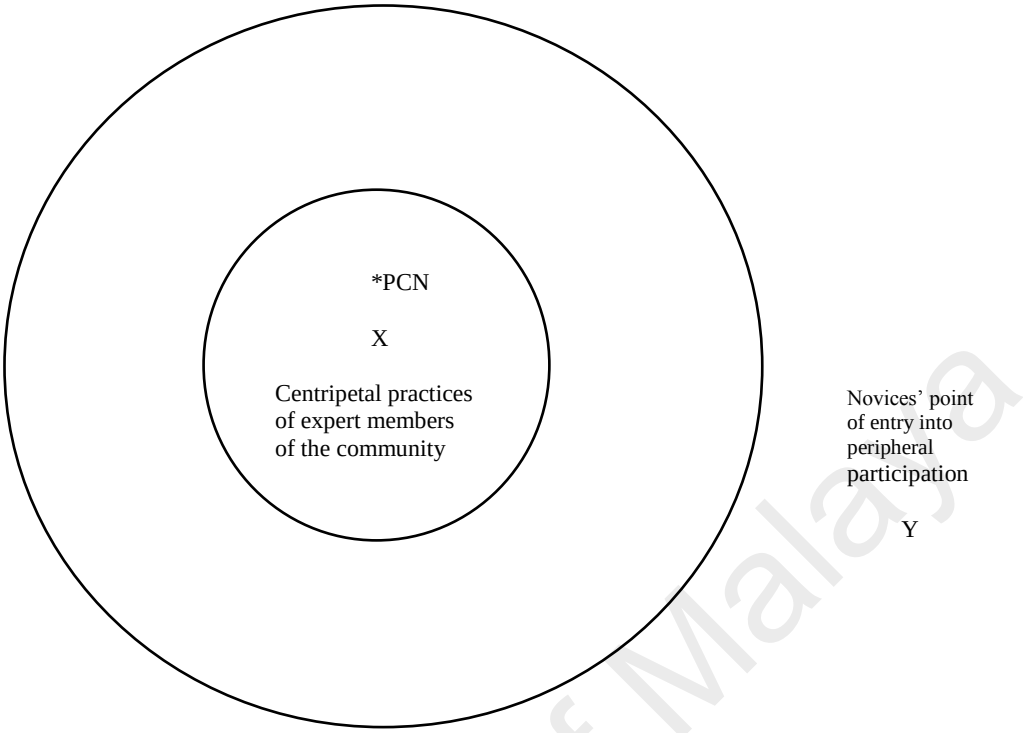

Figure 1.1. A visualization of the novices' LPP into the centripetal practices of the expert members of their CoP

It is also a point where I began data collection. After several weeks, the novices could be depicted as moving from the peripheral point Y toward participating in specific target expert practices depicted as X which also marks the end of Week 12 of their clinical practice. For the purpose of the study, I focused on the first three weeks of the transition process unfolding along the continuum of YX to answer research question one while the overall participatory process was investigated through research question two, specifically the novices' interpretation of the PCN, the core artefact. The PCN being a shared repertoire of resources namely tools, experiences, and artefacts; sense making of the PCN is thus presumed to be an important way through which participatory practices of the community is learned, which is the key focus of this study.

Significance of the Study

The focus of the present study was on gaining insights into the learning experiences of year one student nurses as they learned to acquire competence in reading their professional workplace text: the PCN of their discourse community. The findings on the perspectives of the participants had provided the lens to view reading in the context of the social and cultural practices in which it is embedded and not in terms of a set of discrete decontextualized reading skills. This insight besides being helpful to understand how the novices use and interpreted the case notes also informs how the process can be improved toward improved patient safety and care. Thus the findings have valuable pedagogical and curricular significance for nurse educators and policy makers, in making decisions regarding nursing programmes concerning clinical practice for year-one student nurses at the workplace. Specifically the insights on how year one student nurses mediated their workplace literacy needs in their situated context amidst other aspects of nursing practice (Newton et al., 2009) are significant as they capture the complexities of workplace learning. The findings also shed light on the need for providing better induction into the literacy practices of the discipline (Rose, Rose, Farrington, & Page, 2008). More importantly the findings revealed the process of becoming a newcomer as the novices engaged peripherally in specific participatory social practices of their workplace. The opportunities that were afforded to individual newcomers to engage in the social practices of their workplace had facilitated their textual experience. The findings also offer insights into issues surrounding the practice of English for Specific Purposes (ESP); specifically, the need for ESP reading teachers to view language and literacy in relation to the culture of workplaces, texts and target literacy practices required by the learners in distinct

disciplines, rather than isolating discrete skills and language forms thought to be common to all disciplines (Gimenez, 2008; Hyland, 2006).

Limitations of the Study

The results of this qualitative study was derived from an in depth investigation on a range of five to eight participants comprising student nurses in an established teaching hospital. This small size may raise some contentions as to the generalisability of the study to a larger population or to other contexts. A second limitation of the study stems from the background of the researcher who does not have nursing experience. I addressed this limitation by conducting a preliminary study to familiarise myself with the context in the ward settings prior to commencing the study and prolonged engagement in the site for the actual study (approximately 10-12 weeks). Another given of this situation is that I was able to collaborate with expert members of the nursing fraternity on daily basis. Furthermore, doing a qualitative research posed some limitations on my role as the main tool of data collection. As observations were a crucial source of data collection, a limitation that emerges is researcher bias. I attempted to reduce the bias to certain extent by monitoring my own subjectivity. This was done by writing down my feelings and emotions experienced at various points during the data collection especially during observations. Additionally, I also had to use other sources of data collection mainly interviews and documents to triangulate my findings from observations and hence the research bias was delimited to a certain extent. Finally, being based in the context of a fast paced hospital setting, I needed to constantly remind myself to play strictly the role of an unobtrusive observer so as not to obstruct the flow of activities in this setting. However, the number and time spent on observations of some participants were lesser compared to others. For example the number of observations I did on Izza and Ame were fewer than that of Yaaz, Rul, Ri

and Eva. Although I was able to get quality and in depth data from Ame (refer to data from Change of Shift (hereafter CS) and on Passing Report in chapter four), she like Izza was not always available during my visit to the sites to carry out observations. This was because their engagement sometimes in other tasks such as accompanying patients to do procedures at specific venues, or because I was observing another participant at the specific time at another ward. The next section contains a list of operational definitions that appears in the thesis.

Operational Definitions

Patients Case Notes: Based on Parker and Gardner, (1991), the PCN is basically a composite of chronologically written texts that serves as communication tool between health professionals. The PCN provides an account of patients' treatments that include investigations, results of diagnostic tests and procedures, and the varying health status of patients during hospitalization (American Heritage Stedmen's Medical Dictionary, 2013). The Patient Case Notes in the context of this study which is a large established teaching hospital includes all the official records on the patient's history, treatment, results of diagnostic tests and procedures, health status, care provided from the multidisciplinary health based at the hospital including nursing notes.

Literacy: Literacy in this study adopts Gee's (1999) notion of literacy. Hence literacy is defined as encompassing socially recognized ways of using language (reading, writing, speaking, and listening) and interacting in relation to people.

Literacy Event: The definition of a literacy event draws on the conceptions posited by Heath (1983), Street (1995) and Barton and Hamilton (2000). Thus in this study a literacy event is when texts contained in PCN become the focus of student nurses' interactions and interpretive process (Heath, 1982) in which literacy,

specifically when reading/ writing play a role (Street, 1995). These literacy events are observable and stem from literacy practices (Barton & Hamilton, 2000).

Literacy Practices: Literacy practices refer to general cultural ways of using written language which is utilised to carry out a literacy event but these practices are not observable units as they involve values, attitudes, feelings and social relationship (Barton & Hamilton, 2000).

Discourse Community: A discourse community is a group of people who have texts and practices in common (Barton, 1994). Having shared text also implies that people who participate in a set of discourse practices both by reading and writing, have the same purpose (Swales, 1990). Membership is obtained through learning the conventions either through formal or informal apprenticeship (Flowerdew, 2000).

Experience refers to the personal experience and feelings that the participants underwent as they participated peripherally and legitimately in the various activities of their workplace that led to the accumulation of knowledge and skills.

Nursing process: Nursing process refers to the process by which student nurses systematically collect and scientifically analyse data from a patient in order to identify the needs of their patients, identify nursing diagnosis, outcome criteria and implement nursing interventions for patients and finally make assessments on the response of the patient to the interventions implemented.

Patient Script: Patient scripts enable doctors and students to connect the symptoms and signs of new patients with those they have already seen in the past (patient script to patient script) and with what they have read in textbooks and in Case Notes (patient script to illness script).

Chapter 2 Literature Review

Introduction

This study is an investigation of how novice year-one student nurses learned to read and interpret the Patient Case Notes, a discipline specific workplace text in clinical settings. This chapter contains a review of a range of interconnected research literature that underpins the study. The first section focusses on reviews of literature related to issues on the conceptualisations of literacy, literacy practices and literacy events. Besides this, the notions of workplace literacy, workplace learning, reading and intentionality that underpin the concept of learning in this study are also discussed. The subsequent section outlines the theoretical perspectives of the sociocultural theory of learning that provided the relevant conceptual lenses to understand the phenomenon being studied (i.e. the socially and situated nature of the learning that emerged in this study). Though, Lave and Wenger's (1991) theory of Legitimate Peripheral Participation (LPP) and the concept of communities of practice (hereafter CoP), a central notion in situated learning approaches continues to be deliberated as being dated (Billett, 2004) it had provided the lens to understand issues surrounding novices' transitioning experiences into their workplaces for learning. The final section looks at the domain of nursing to understand related literature on student nurses' experiences of learning the practice of nursing in clinical settings in different contexts.

Notions of Literacy

In reviewing the literature on literacy it is organised around perspectives on the conceptualisations of literacy both past and the current views in order to position understandings of language and literacy which is a core issue in this study. This review sets out to justify how it is situated in cultural and situated practices and not something that is generally applicable to a particular culturally situated context and purpose.

Embedded within this section are notions of intertextuality, multimodality, transfer of learning and perspectives on reading, the conception of intentionality in workplace learning.

The field of literacy is vast. Considering the vastness, it is natural as Barton (2001) warns to expect "disputes" and many "unresolved issues" (p. 92). Others too have echoed similar views when they assert historically the notion is "multi-layered and loaded" (Kelder, 1996), and "contested" (Moss, 2009). As Schultz (2002) concludes, it seems literacy represents different things to different people across space and time. Research literature, however cautions that literacy is not a neutral definition; rather it is an indication of the varied conceptions of reading and writing that are embedded within "discourses, learning and learners" (Papen, 2005, p. 7). A review on the background of literacy studies traces various perspectives and conceptualisations on literacy held by society. Although, traditionally literacy has been synonymous with schooled literacy (Street, 1995) the conceptualisation has been broadened to include literacy in out of school settings (Schultz, 2002). The following sections discuss School-based notions of literacy and Literacy in Out of School settings, two contested conceptions relevant to the discussions in the study.

School-based notions of literacy. For many years, the issue of literacy specifically reading and writing was seen primarily in terms of school literacy. This notion of literacy was skills-based and was considered universalistic. The approach to this conception was to see if skills were well-learnt by testing candidates on what were considered important skills. This strand of school based studies soon came to be known as the autonomous model (Street, 2001). This model assigns the notion of literacy to literally all domains of life ranging from individual cognitive skills to economic progress (Bartlett, 2008; Graff, 1982; Kelder, 1996; Schultz, 2002; Street, 2005). The

prevailing approach then to teaching literacy is that 'one size fits all' notion. As this study focuses on investigating a workplace literacy, the skills-based notion of literacy which many researchers equate it to "crisis narratives" (Ivanič, Edwards, Satchwell, & Smith, 2007, p. 704) or that of "conferring benefits" (Bartlett, 2008, p. 737) is not a feature in this review of literature. Conversely, literature on literacy in out of school settings which has implications for pedagogy and learning across a range of contexts (Hull & Schultz, 2001) is drawn upon to examine a literacy associated with the occupation of nursing that was situated in cultural and situated practices.

Literacy in out of school settings. An identifiable trend in literacy research from the 1990s was a shift in literacy research in terms of pedagogy and learning which saw researchers (Cazden, 2001; Cook-Gumprez, 1986; Gee, 1989; Kress, 1988; Scribner, Cole, & Cole, 1981; Street, 1984) subscribing to a complex sociocultural paradigm of literacy studies. This "shift in gaze" from individual behaviours towards a focus on social and cultural interactions and context also changed perspectives on what counts as literacy (Baynham, 1995, p. 285). In line with this trend, reading and writing were beginning to be seen as embedded in social practices of a particular context, be it educational or workplace. Likewise, conceptions of knowledge, identity and being were also posited as contextually-determined (Bartlett, 2008; Street, 2003). As, Hull and Schultz's (2001) study affirm, this strand of research on literacy generally adopted an ethnographic perspective in analysing the use of reading and writing in specific societies, local communities and meanings of events. This lens enabled researchers to include diverse forms of literacy and literate activities in different contexts of homes, communities and workplaces, as sites where literacy is used. Emergent findings of the current study revealed that literacies and the discourses of clinical settings were not discrete literacy skills but rather cultural and social

constructions. Hence a focus on school-based autonomous literacy skills would fail to take into account the multi literacy needs of the novice learners in carrying out specific tasks of their workplace.

Landmark ethnographic studies. Various weaves of ethnographic studies shaped research on out of school settings. These include theoretical perspectives drawn from landmark studies of Scribner and Cole (1981), Heath (1983) and Street (1984). Specifically, Scribner and Cole's (1981) study aimed at investigating the language use and the cognitive effects of literacy amongst the Vai people. Methodology for the study comprised both qualitative and quantitative methods while the cultural practices of the Vai provided the content. A key finding of their study refutes claims linking literacy and cognition, even though they found that specialised reading and writing activities serve to aid specific memory tasks. Heath (1983) and Street (1984), on the other hand were involved in ethnographical and anthropological studies. Street's (1984) landmark ethnographic study examined the uses of literacy among communities of people in rural areas of Iran. Based on the findings, Street (1984) summarises that "... practices of reading and writing taught in any contexts depend upon…aspects of social structures … and the role of the educational institutions" (p. 8), meaning literacy is determined by the context of the social institutions in which it is embedded. This seminal study culminated in the outline of the ideological approach to literacy. Collin and Blot (2003) state Street's strong rhetoric on the autonomous approach where literacy is seen as non-aligned to the social context has been credited for much of the current development on discourses about literacy. Additionally, Street's (1985) distinction between the ideological and the autonomous approach based on the notion of multiple literacies rather than to the notion of single literacy has won him much recognition (Bartlett, 2008; Barton, 1994).

Similarly, Heath's (1982) decade long study investigated a white working class community in Roadville and a black working class community in Trackton socialising their children's literacy practices. In her findings, she highlights the differences between the uses of reading and writing and language pattern within the various contexts of home, community and school. Heath demonstrates this by showing adults in Trackton providing their children with opportunities to engage in acts of interpretation, discussions and talk around written texts which did not feature among the white working class community. Heath's findings revealed the Roadville community adhered to rules as defined by society when they taught their children but made no deliberate attempt to use literacy to enhance memory. The findings also showed their children appearing to settle well into the school system but their academic performance showed otherwise. Heath argues that although the people of Trackton were literate, they did not possess the necessary language and oral skills which would have enabled them to: - retrieve information about the content, use written documents and ask questions to clarify their meanings. Heath informs that the Black working-class community despite not having reading materials, had blended reading into their daily activities.

Essentially, Heath demonstrates the interdependence of language and literacy with that of habits and behaviour shared among members of different social groups. Subsequently, she developed the concept of literacy events as a tool for examining language use and the forms and functions of oral and written language. Heath's seminal study succeeded in documenting differences in literacy practices of various communities and for detailing the functions and uses of literacy practices (Barton, 1994). Collin and Blot (2003) acknowledge the contribution of the concept literate practices posited by these researchers that have enabled us to see some of the "flawed

assumptions" (p. 65) of the autonomous approach to literacy. What was significant in this group of studies was the shifting notion of literacy from an independent variable to that of a dependent variable and the conceptualization of literacy as being situated within its context. This study draws upon seminal work in literacy and ideas pertaining to social practices and reveals how they are enacted within nursing.

Definitions of literacy events and literacy practices. Perspectives on literacy events and literacy practices are two crucial units that underpin this study. The study is grounded in the theory of literacy as a social practice (Papen, 2005; Street, 1984). The two distinct perspectives of literacy event and literacy practices have been defined in varied ways. Hamilton (2000) views literacy events as "constituents of literacy practices" (p. 16) while Papen (2005) differentiates literacy events as what people do with reading and writing which can be observed and captured as they are engaged with written texts. Street (1995) views literacy practices as a broader concept that includes "behaviour, social and cultural conceptualizations that gives meaning to uses of reading and writing" (p.2). Briefly, literacy events serve as concrete evidence of literacy practices. Literacy events, as Heath (1982) further explains requires "certain interactional rules and demands particular interpretive competencies on the part of the participants" (p.350). Heath (1988) defines literacy event as "any occasion in which a piece of writing is integral to the nature of participants' interactions and their interpretive processes" (p. 93). Heath's seminal study (1982) provides evidence that specific practices that maintained the literacy events were also not ad hoc happenings but were planned with a specific purpose, have provided useful insights on how reading and text interpretations were facilitated.

Definition of literacy events by Heath (1988) and Street's (1995) definition of literacy practices in different communities continue to gain wide attention of fellow

researchers of literacy (Collins & Blot, 2003; Hull & Schultz, 2001; Reder & Davila, 2005). Barton and Hamilton (2000) contribute to the discussion by reiterating that, "events are observable episodes which arise from practices and are shaped by them" (p. 8) while literacy practices can only be inferred from observable evidence. This is because literacy practices include intangible resources such as knowledge, feelings and values which are part of the constantly changing spatial and temporal contexts. The notion of events stresses the situated nature of literacy. Street (2003) argues since literacy always exists in a social context it is bound to carry ideological meanings. Gee (1999) points to a gap in Heath's (1983) notion of literacy events which highlights the mediation of texts through dialogue and social interaction, in the contexts of particular practices, without the mention of "power relations" or the discourse that sustains them. Barton, Hamilton and Ivanic's (2000) definition of literacy events as "repeated activities of routine sequences that could be part of formal procedures of an institutions" (p. 9) such as workplaces, where often there are written texts, is drawn upon to ascertain if specific practices in the workplace of the current study are ad hoc occurrences or pedagogically inserted. Perspectives on literacy events and literacy practices had led to an influx of ethnographic studies documenting literacy practices in across diverse contexts (Reder & Davila, 2005) Even in recent times, Lenter (2014) credits Heath for her invaluable contribution to the body of sociocultural studies with the concept of literacy event: a new unit of analysis. Papen (2005) claims the initial conceptualisations of literacy as social practice rather than seeing reading and writing as a discrete skills and away from educational settings, motivated many researchers to study the role of literacy in everyday life. The new orientations resulted in the emergence of new significant body of research known as the New Literacy Studies

(NLS) with its own distinct language to talk of their conceptions of literacy. The NLS is given emphasis, as the current study is angled within this ambit.

The New Literacy Studies

The New Literacy Studies (NLS) is one among the many movements influenced by the ideological model based on the sociocultural approach to literacy (Gee, 2000; Lankshear, 1998). The NLS gained recognition for its stress on studying literacy in context and on the premise that literacy is always ideological practice (Gee, 1999; Hull & Schultz, 2001). The NLS researchers such as Gee (1999) and Street (1998) challenged approaches which focused on decontextualized basic skills (Stephens, 2000). In their conceptualisation, NLS did not view literacy in terms of "broad socio-political and economic forces" (Reder & Davila, 2005, p. 172) but as an integral part of social events and social practices (Papen, 2005). Hence, it comes as no surprise that NLS researchers (Barton & Hamilton, 1998; Barton et al., 2000) focused on examining local uses of literacy in different communities to drive the point on the diversity of the uses of literacy and its many meanings for people (Papen, 2005). Street (1995) postulates that being ideological, literacy then must be studied in the context it is embedded, be it the social, cultural, historical, economic or political. This premise also appears to resonate with Scribner and Cole's (1981) reminder that knowing how to read a particular script does not constitute reading but what is important is the ability to "apply the knowledge for specific purposes and specific contexts of uses" (p. 236). This being so, the NLS researchers find it "problematic" (Street, 2006) to use the term *literacy* and have come with alternative terms to distinguish "literacy events" and "literacy practices" in order to focus upon social practices and conceptions of reading and writing (Street, 1985). Gee (1999), alludes to it as related to the construct of *Discourse* to refer to " ways of behaving, interacting, valuing, thinking, believing,

speaking and often reading and writing that are accepted as instantiations of particular roles by specific groups of people…" (p. 132). The inclusion of *Discourse* to literacy with regard to identity has gained the attention of researchers (Barton et al., 2000; Hull & Schultz, 2001). Maybin (2000) states this means looking simultaneously at how meaning is derived as people use oral language around texts and also how individual identities and social relationships are instantiated. However, Hull and Shultz (2001) argue that even in this conceptualisation, discourses like literacies are also ideological and encapsulate within them social hierarchies and power.

The NLS appears to be instrumental in steering the paradigm shift in literacy studies where definitions of literacy are linked to social practices in which they are embedded. Additionally, NLS researchers have also succeeded in throwing light on the ways in which reading and writing are used especially in workplace settings. The NLS, like the previous strands of research have been challenged (Moss, 2009).

A frequently asked question when speaking about the NLS is the question on wanting to know what is "new" in the NLS. Street (2012) postulates that there will always be the tendency to compare any new features of New Literacy Studies with that of traditional uses of reading and writing. A contentious point of researchers (Brandt & Clinton, 2002; Collins & Blot, 2003) is that the NLS, "overstates the power of the local contexts" while ignoring the influences of the global and remote context which they claim inadvertently "infiltrate local literacies" (Brandt & Clinton, 2002, p. 338). They further canvassed to reinstate certain dimensions of the autonomous brand of literacy which the NLS had cast-off. In the midst of the dissenting voices, Street (2003) concedes with Brandt and Clinton (2002) that there are "impasses" in the NLS which should be addressed. Moss (2009) highlights particularly the role of Latour's (2002) "theorising of the relationship between the local and the global" (p. 347) which has

played an important role in Brandt and Clinton (2002) acknowledging the penetrating influence of both the "local" and the "global" on literacy and its uses. Meanwhile, NLS researchers (e.g., Barton, Hamilton, & Ivanic, 2000) have continued to explore ways of linking the concept of literacy to that as a social practice (Papen, 2005) which is discussed in the following segment.

Literacy as a Social Practice

A specific perspective of literacy introduced by the NLS researchers is conceptualisation of literacy with a focus on social practice. It is said to be influenced by social, cultural (Bartlett, 2008; Barton & Hamilton, 1998; Hull & Schultz, 2001; Searle, 2002) and context of situation (Malinowski, 1992). Barton (1994) suggests that one way to bridge the gap between the psychological and the social tradition is by employing an integrated view of literacy that is by studying literacy as a set of social practices in relation to "particular symbol systems and their related technologies" (p. 32). Literacy is also seen in terms of empowering an individual access to power through the ability to become informed and to make informed decisions. Bartlett (2008) asserts that it is the social and cultural forces that conditions individuals' literate ways. In line with this conceptualisation, researchers (Barton & Hamilton, 1998; Ivanič, 1998; Papen, 2005) propose that rather than focus on discrete skills that underlie reading and writing, a socially and constructed view of literacies as multiple, emergent and situated has more to offer. Primarily, it may enable us to see differently the way texts are read and written as embedded in everyday activities of life, among others. Papen's argument that how different types of text are read would depend on for example, the choice of "reading path" taken by the reader is something that needs consideration, in the context of this study, in view of the varied texts found in the PCN. In the skills based view, although the scripts can be used in different ways, the core

skills would still be based on coding and decoding. Whereas, literacy as a social practice view would respond by drawing attention to the skills needed for various literacy practices. At the same time, it would highlight the varied meanings and purposes of the literate activities, other contextual details and the ways in which they are embedded. Despite the changing perspectives, several literacy researchers (e.g., Moj, Overby, Tysvaer, & Morris, 2008) argue most definitions of literacy are with loopholes. Varied definitions of what counts as literacy are indicative of the notion that literacy has been existing on a continuum in society over the decades.

Learning in the Workplace

The combined factors of the current conceptualisations of literacy discourses, the expansion of information-based technology and pressing issues of workplace learning have placed new importance on literacy orientations of many workplaces (Fenwick, 2008). An area of literacy that has been receiving intense scrutiny since the mid-1980s (Dias & Paré, 2000; Searle, 2002) is literacy within workplace settings. It has been argued that a large part of the learning undertaken by adults occurs at their workplace. And what makes this learning distinct and meaningful is this it involves learning from others (Boud & Middleton, 2003). The impact of informal interactions with peers, workgroups, and the "learning that occurs unprompted by deliberate facilitation" on learning, compared to formal training on the practice is another of its significance (Boud & Middleton, 2003, p. 194). This view is also shared by Eraut (2006) as he counterpoises the systematic learning that takes place in the classrooms. Eraut claims this learning when compared to informal learning, is of lesser importance in the actual workplace context. Eraut (2006) reiterates that the most common form of learning comes from learning from others in the form of consultation and collaboration within the immediate working group and observations of others in action. Smith (1995)

attributes this shift in perspectives claims on workplace learning to an increased interest in situated learning and recognising the potential of workplaces to provide learners the platform to bridge theory to practice.

Desired transfer of learning is an important concept both in education and learning theory (Green, 2015; Macaulay, 2002). Billett (1996) on the other hand, asserts that situated learning is a way to address the issue of effectiveness of transferability. Here it is noted that situated learning within the context of practice had also been the call of numerous other researchers (e.g., Lave & Wenger, 1991; Resnick, 1987). Nevertheless, Eraut (2006) clarifies that in order to facilitate learning at the workplace, a wide range of learning support must be organized formally or informally at a local level such as mentoring and coaching. One potential area that needed to be explored to identify gaps in workplace learning could be in understanding structures of newcomers' entry experience into their workplace organisation. Louis (1980) claims there is an assumption that beginning newcomers are, "ill-equipped to make sense of the myriad of surprises that potentially accompany" (p. 248) newcomers' transitioning into an unfamiliar workplace. Newcomers making the initial transition to their new workplaces had also been the subject of study of Parks (2001). Parks's suggestion of looking into how acquiring the target literacy practices of their discourse community might facilitate the transitioning of newcomers especially into multilingual workplaces, is also of relevance to context of the present study.

Workplace literacy. Literacy pervades workplaces and it is very much influenced by the context and purpose. Folinsbee and Hunter (2002) conceptualise workplace literacy as a social practice. They define workplace literacy as a meaningful communication that takes place through text where literacy practices of reading and writing are embedded in context. Context is visualised as an interwoven tapestry

comprising, "social and power relations among the readers and writers of texts, experiences that people bring to a text, their purposes in engaging…with the text, their cultural attitudes, beliefs and values…" (p.2). Billett (2004) also lends support to Parks's (2001) proposition on the need for studies to investigate how individuals learn at professional workplace sites. According to Searle (2002) such studies on literacy are necessary in maintaining the "culture" and "the social order of their individual workplace" (p. 18). Thus, learning at the workplace appears to be fundamental not just at the personal level but also encompasses institutional purposes. Additionally, Smith (2003) asserts that evidence from research on workplace learning also reveals the learner preference to learn in socially constructed environments.

In considering the novice learner, it becomes crucial as Smith posits that learning networks of workplaces should provide the range of learning activities and structured support for engaging learners within the CoP. As literature on changing workplaces informs there is a need for clearer understanding of the complexities of literacies at workplaces beyond the surface. Folinsbee and Hunter (2002) assert that how workplace text is "interpreted, produced and learned meaningfully is only in the contexts of its use" (p. 3). Literacy as a social practice view contrasts to a skills based approach. This view is reminiscent of Darrah's (1997) reminder that to fully understand workplace literacy issues it has to be viewed beyond the "skills requirements" to a social context approach. A social view of literacy and literacy learning encompasses other dimensions such as context identities, power relationships, and culture for understanding literacy. Hence a major concern is that traditional cognitive skills underlying on individual, psychological models of learning and communication may cause novice learners to "misread" and misinterpret documents because their own purposes and contexts clash with those of writers" (p. 3). An

assumption about workplaces is that they are known to be highly contested arena. Findings from the current study too highlights instances where the contested nature of the hospital settings resulted in the privileging of practice rather than the participation and engagement which can be detrimental to learners defaulting in terms of learning outcomes as argued by Billett (2002).

Notions of workplace learning environments. Several important concepts and assumptions underpin understanding workplaces as learning spaces. One concept is that learning hinges on premises such as the quality of guidance provided to learners, their engagement and how individuals are invited to participate in the workplace activities (Billett, 2001b & Smith, 2003). While another premise involves knowing how individuals decide to respond to engage with these affordances. On the other hand there are also notions regarding workplace learning as being ad hoc due to the absence of written curricular documents and planned teachers' actions and issues of transferability outside the workplace. However, Billett (2002) challenges these existing discourses that declare individuals' engagement in workplace learning as "informal and unstructured" and "inferior" (p. 1) as invalid. He argues that workplace participatory practices are not incidental but rather carefully regulated by deliberate learning curriculums (Lave, 1990) and workplace structures that are embedded in innate pedagogic practices. This is to ensure continuity of practices of the community. Proponents of workplace learning further assert that a major part of this has the elements of intentionality and continuity (Billett, 2004) capable of augmenting learning outcomes. Hence the learning that results whether through the process of engagement or through intentionally planned strategies (e.g. the guidance, mentoring by expert members at workplaces) is actually a symbiotic process put in place to shape the participation and learning. This review on the various notions underpinning

workplace learning revealed the potential of each of these dimensions impinging the investigation on workplace participation and learning of this study.

Elements of workplace literacy competence. The move away from individual behaviour and individual mind to the social and cultural interaction saw the birth of another perspective on reading (J. Gee, 2000). Reading and writing according to the New Literacy Studies (NLS) only makes sense when studied in the social and cultural context. Researchers (e.g. Jewitt, 2008; Kress & Van Leeuwen, 1990) focused on investigating literacy practices especially in new workplaces. They found that traditional forms in terms of grammar, semantics or lexicon playing a lesser role especially in workplaces due to new communication requirements. Street informs the new literacy in workplaces are represented in relation to a wider semiotic systems which include combinations of signs, symbols, words, people, texts and images deemphasising lexis. Others too like the New London Group or the NLG (1996/2000) and Jewitt (2008) have voiced their concerns on the increasing cultural and linguistic diversity that have emerged as a result of the multiplicity of communication channels where semiotic characteristics of various modes are assembled together in multimodal compositions.

Researchers (e.g., Kress, 2000; Street, 1998) agree that semiotic modes can be translated into a meaningful whole and does not depend not on traditional rules of grammar but would require a metalanguage (NLG, 2000) to describe the forms of meanings or grammar as meaning (Street, 1998) referring to the ways in which, people, places, things depicted in images "are combined into meaningful whole" (Kress, van Leeuwen, & García, 2000, p. 1). Street (1998) informs that typical documents at the workplace could comprise a mix of semiotic modes and written texts. Given this, Street (2001) questions the validity of decoding skills that learners have become

familiar with in educational settings. Street argues that this may not be relevant in the sense making process due to the complexities involved in their construction. Considering this premise, the role of reading in non-linear and multimodal text types of workplaces such as the PCN in hospital settings, in the current study are diminished as it forms just only a part of literacy, in order to be literate (Street, 1998). In their proposed pedagogy of multiliteracies the NLG researchers (e.g., Gee, 2008) echo Street's concerns when he uses phrases such as "reading as interpreting" and "reading as ordering" (p. 140) to indicate the shift in acts of reading which require new perspectives, new lenses and new competencies for understanding what is there to read. Gee (2008) too affirms that contemporary texts of professional workplaces are increasingly multimodal and have implications for reading practices.

Gee argues that if texts with different modes are interpreted based on just unlocking alphabetical meaning, then images with their "semantic openness" will not be "read" or have no meaning. Additionally, Gee points out that not having syntax of language in texts where image can be a dominant mode of representation too is complex. Given this, Gee (2008) theorises that reading of written texts would become more specialised while reading of multimodal texts is set to become more complex and so the demands on readers and reading will be greater. In his take on reading, Gee (2008) advocates for a semiotic approach to understand reading where both images and writing are used together to convey particular meaning.

Kress (2000) argues that the notion of text in view of changing communicative practices and changing workplaces implies text is not just about conveying information or reading about gaining information, as traditionally perceived. Kress (2000) and Gee (2008) believe a semiotic approach which is focused on one particular mode such as a conventional based language approach will not be adequate to facilitate "an integrated

description "of multimodal text. Based on the contentions of NLS researchers, it means learners need to recognise for example when people are not talking straight and how to draw on various resources of language such as registers and specifically view grammar as "means of representing patterns of experiences" (p. 22). Similarly, Jewitt (2008) too reiterates that literacy based on the multimodality perspective means meanings are derived, "as well as distributed, interpreted and remade through many representations where language is but one" (p. 246). As Jewitt (2008) sums up, the multimodal nature of especially texts at workplaces means learners need new competencies for reading and for the interpretative process such as finding different points of entry into text, recognising salient information and be able to link them.

Briefly, as the texts of current workplaces involves a mix of semiotic modes and likewise the resources of meaning making too have changed as a process of design, means these developments have implications for reading. Even though the current study comes under the general rubrics of reading, an assumption is the reading of patient's case notes cannot be simply reduced to applying a list of discrete, decontextualized reading skills and strategies due to the large amount of data represented in the various texts with their respective textual features. Nygren, Wyatt, and Wright (1998) inform that interpretation of these features provide not only directions to the process of searching, reading, and assessing the relevance of various types of data in case notes but as well as form the basis for decision making. Hence, to use these texts a reader has to take into consideration the format, layout as well as the other textual features of written language and other semiotic representations, exhibited to them. Past and current studies on issues and perspectives of literacy, the social systems and cultural practices embedded in the reading shed light on understanding the textual learning experiences of the novice participants in this study

as they read the PCN of their clients and engaged in the social practices and affordances of their workplace discourse community. Specifically the review highlights the kinds of competence novices need to be able to read workplace texts.

Some Views on Reading

The ultimate aim of reading can be seen as to construct text meaning based on encoded information intended by the author (Koda, 2007). However, what constitutes as reading for learners for success in domains of colleges and workplace continue to shift in shape and scope of interest (Bean, 2000). A review of literature informs the existence of opposing perspectives on reading which has dominated reading research (Street, 1984). One permeating discourse around reading is that it is a set of basic skills once acquired is widely flexible and applicable effectively to all kinds of texts, is debatable (Shanahan & Shanahan, 2008). For example, Koda's (2007) proposition of two perspectives on reading: one as an "indivisible whole" and the other as "a constellation of distinct components" which can be isolated (Koda, 2007, p. 3) appears to be inclined toward the skills based approach to reading. Koda also claims the componential view of reading enables one to understand the relationship among the subskills which helps to understand the facets of reading competence such as in identifying sources of reading difficulties, specifically in L2 reading.

A contrast is noted in Goodman's (1969) view of reading, which is based on the premise that since language is learned holistically through communication, then reading too ought to be seen as a whole. Searle (2002), however warns an emphasis on reading, including writing, speaking and listening as isolated skills divorced from the context leads towards a reductionist assumption. Meaning that only certain skills and practices might be considered as "desirable" (p. 18). Koda (2007), however, concedes that the componential view of reading cannot be generalized due to individual

differences where reading abilities are concerned. Surprisingly, although Barton (1994) is critical of viewing reading from a skills approach perspective, he does not cast it off totally as irrelevant. Barton agrees with Scribner and Cole (1981) that, in specific situations, and practices, skills are involved but they are not discrete skills. Even though Barton (1994) a strong proponent of the social practice view of literacy sees the need to recognise the specific skills embedded within the social context of practices.

English for Specific Purposes

Learners on the threshold of entering their professional workplaces such as in engineering (Harran, 2011); geology (Dressen, 2000) and in nursing (Parks, 2001) have needs for specific literacy practices of reading, writing and discourse. Harran (2011) reports that stakeholders have assumptions that learners will somehow learn the discourse and target literacy practices of the discourse community. English for Specific Purposes (ESP) is distinguished from general English. The objective is to meet learners' specific needs in using English in a specific professional field (Chien & Hsu, 2010). ESP has been in the forefront in contributing insights into structure and meanings of professional texts, demands of academic and workplaces and pedagogic structures which can aid the development of appropriate behaviours (Hyland, 2002). Given this, an effective ESP teacher is thus, one who is proficient and should have acquired knowledge of a specific profession. ESP thus, is a response from the language teaching profession to ensure that English continues be in the front line as the leading language for dissemination of academic and disciplinary knowledge (Hyland & Hamp-Lyons, 2002). However, criticisms of teaching ESP are plenty (Belcher, 2006; Chien & Hsu, 2010).

An area of contention for example is that ESP is "material-driven rather than method driven" with preference for authentic materials that represent the discourse community to which the learners intend to gain membership. Bhatia's (2003) argument is professional texts should not be taught in isolation but in context and in relation to professional practices, simply because both the texts and professional practices complement each other. One major debate about ESP's "material-driven focus is that, once the text is abstracted from its context into the classroom, it is considered inauthentic" (Belcher, 2006). The assumption is that although a context may be non-authentic, authentic-like tasks could substitute for the authenticity, as the context is rendered "more or less authentic" (p. 137). In attempting to garner support for her stance, Belcher (Belcher, 2006) draws on Widdowson's (1979) observation that, "authenticity resides not in texts but in the interactions between texts and intended contexts." (p. 165). Authenticity, according to Widdowson is a relative matter as it can take different connotations and not something that is waiting to be "noticed" but it can be considered authentic, provided if it is, in the context in which it is written. Widdowson, thus views authenticity more of an act of interpretation.

Meanwhile a reality is that many novices are posited as not being able to use their professional text or deal with its textual features, when they transition into the workplace (Bhatia, 2003). Demands of different social purposes of workplace literacies go beyond controlling linguistic error (Hyland, 2006). The issue of discourse specificity is yet another contentious concept of ESP that seems to lend to some of the ambiguity surrounding issues such as the role of teachers and the transferability of skills and features of language across disciplines and professions (Hyland & Hamp-Lyons, 2002). Hyland claims that, in general, teachers of ESP do not deal with specificity but tend to isolate generic skills, forms and language activities that are

assumed common across disciplines. Hyland raises the issue of transferability of these skills across disciplines. Cheng and Anthony (2014) too argue that specificity forms a pertinent issue, as it has implications related to pedagogical practices. In their review, they cite Attai and Fateh Majid's (2014) study in Iran that compared English language teachers (ELT) and subject language teachers' pedagogical practices while teaching discipline based EAP reading courses at a university of medical sciences. Their findings had revealed glaring inconsistencies in subject teachers' pedagogical practices and beliefs in their EAP reading pedagogical practices.

Meanwhile, Cheng and Anthony (2014) report that there is a growing preference especially in the Asian context for "narrowly focused ESP courses" (p. 2) to be taught by their own subject teachers rather than ELT, who are generally considered "unqualified" (p. 2) by subject teachers. The findings to a certain extent appears to be justified based on Mazdayasna and Tahririan's (2008) study. In their study, nursing and midwifery students reported that they would have stood to gain at the workplace, if the specialised English academic courses they received had provided them "authentic academic language experiences" (p. 281). Researchers (e.g., Cheng & Anthony) however, agree the solution to the problem does not stop merely by replacing an ELT with subject teacher. Rather it warrants for an increase in communication between the two groups for the dawning of a carefully planned ESP programme.

Harran (2011) appears to support the issue of "specificity" in ESP when he proposes that both English teachers and discipline experts should acknowledge that discourse structures are an essential part of content and, thus, language should not be downplayed. Harran's (2011) study focused on a language engineering project

involving first year South African mechanical engineering students' literacy and discourse needs in a HE institution. The findings of Harran's study however, demonstrate that even in a structured collaborative cooperation, an uneasy relationship existed between language and discipline experts. The reluctance of engineering lecturers to provide authentic engineering reading material to language teachers to facilitate the students' acquisition of the discipline's discourse is among the reasons cited for making the collaboration process complex (Harran, 2011). Novices, especially L2 learners, transitioning into professional workplace communities of practice for training, have specific literacy needs, more so when there is a professional text. As Peters and Fernandez (2013) argue, considering learners' long-term involvement with their specialised domain and language, ESP has an instrumental value. Hence, ensuring transferability of ESP training to the workplace is crucial (Dovey, 2006). The next section discusses related literature on the sociocultural theory of learning and its perspectives that underpin the present study.

Theoretical Perspectives: The Sociocultural Theory of Learning

There are three main areas in this section. This section begins with a brief overview of the sociocultural theory of learning, followed by an account of literature on the theory of legitimate peripheral participation and the notion of situated learning, and the Communities of practice, to provide the framework to locate the current study. The sociocultural theory is viewed as a family of theoretical perspectives sharing common assumptions. Theories are supposed to serve as lenses to draw attention of what to see (Gavelek & Bresnahan, 2009). They state that the broad theoretical perspectives of the social cultural theory, particularly the situated learning theory of learning has been claimed to be fruitful in offering insights for understanding language learning studies (Leki, 2006; Morita, 2004). These researchers too contend as did Lave

(1991) that learning is situated and that it is rooted within activities, context and culture. The sociocultural theory (SCT) has its roots grounded in Vygotsky's conceptualisation of learning through a process of mediation. According to Lantolf and Thorne (2007) this process takes place through language use, cultural artefacts, activities of the community, cultural means and participation in "historically formed settings" (p.197) such as in peer group interactions and institutional contexts such as workplaces. Lantoff and Thorne (2007) further inform that Vygotsky argues that it is through the internalisation of these culturally mediated artefacts such as language which eventually regulates our intentional mental activity.

On language, Leki (2006) informs that the sociocultural perspective views language as a mediating artefact. This inevitably makes language indispensable to both the human mental process and to the regulation of social interactions. Hence, unlike previous L2 studies that viewed learning as an individual cognitive activity, the central assumption of the sociocultural theory requires learning to be seen as crucially shaped by sociocultural forces. Gavelek and Bresnahan (2009) particularly point out the role played by experienced others and the community in this perspective. Another emphasis ascribed to this perspective is, learning is dependent on face to face, dialogic interactions between the learner and a more experienced person. This points out to a kind of social relationship. Learning viewed through the sociocultural lens is then both social and an individual process (Martin, 2005) where language plays a crucial role in mediating learning. Lave and Wenger's (1991) CoP perspective draws upon the sociocultural theory which offers a way of understanding the learning and the attendant problems which take place between learners and various real world setting in which they are situated. The next segment discusses dimensions of the situated learning theory that has relevance to the current study.

Situated learning theory. The broad theoretical perspectives of the sociocultural theory, particularly the situated learning theory has been claimed to be fruitful in offering insights for understanding language learning studies (Leki, 2006; Morita, 2004). These researchers too, maintain as did Lave (1991) that learning is situated and that it is rooted within activities, context and culture. Freeman and Adam (1996), however claim situated learning is not unitary as some of its key notions are conceptualised differently. However, commonalities such as learning and knowing are context dependent and the process of co-participation are seen as crucial in accomplishing learning.

According to Lave and Wenger (1991) for learning to take place knowledge has to be presented unintentionally through authentic situations. Hanks (1991) infers, this means the emphasis of a research employing a situated learning approach would be on factors such as the social context that emerged as a result of the types of social engagements provided and the relationships between learning the social context in which it happens. In situated learning, Hank (1991) argues, a researcher will not be exploring the cognitive processes or look for the conceptual structures that are in place for learning to occur. Another significant feature that is not synonymous of situated learning is the gaining of discrete, abstract knowledge. In Lave's (1998) conception of situated learning, the emphasis is on the, "inherently, socially negotiated quality of meaning, where learning, thinking and knowing are relations among people who engaged in activity in, with…arising from a socially culturally-structured world" (p. 67). It is this premise that embeds learning in the social practice in the lived world. Fuller, Hodkinson, Hodkinson, and Unwin (2005) inform that this conceptualisation of learning viewed as part of a social activity emerged to counter dominant theoretical

views on learning that were unable to account for how new learning takes place, in a learner.

Based on the findings of Lave's (1998) study on Vai and Gola tailors' apprenticeship in Liberia, Lave and Wenger (1991) came up with the lenses to compare situated learning to "learning *in situ*". They found situated learning as "more encompassing in intent than conventional notions of 'learning *in situ*' or 'learning by doing' for which it was used as a rough equivalent" (p. 31). They explained their view of situated learning based on their observations of the apprenticeship of Yucatec midwives and Vai and Gola tailors which was later included as one of five case studies to exemplify situated learning (Lave & Wenger, 1991, pp. 59-87). In Lave and Wenger's conceptualisation of situated theory of learning, two conceptual dimensions that are pertinent are CoP and legitimate peripheral participation. These two notions that form the crux of their theoretical account of the learning that takes place to analyse and to understand the process through which newcomers into a workplace become full participants (Fuller & Unwin, 2003), are discussed in the following section.

Community of practice. Lave and Wenger's (1991) perspectives on Community of Practice (CoP) emerged amidst a growing awareness of the social nature of learning and cognition, in opposition to the view that learning was purely an individual and a cognitive process (Duff, 1995; Morita, 2004). Even conventional learning theories of apprenticeship were found unable to account for how people for example the Vai and Gola tailors learn their craft without formal educational or training process (Fuller et al., 2005; Lave & Wenger, 1991) based on the premise of "learning situ" (p. 31). The concept of CoP emerged from Lave and Wenger's (1991) study on situated learning and it is best exemplified in the context of five different studies of apprenticeship, based on craft or task based activities, among Yucatec

Mayan midwives in Mexico; Vai and Gola tailors in Liberia; US navy Quartermasters; butchers in US supermarkets and among "non-drinking alcoholics" (Amin & Roberts, 2006). Significant findings revealed all five examples demonstrated varied forms of apprenticeship but all five cases diverged in similar ways from accepted, stereotypes about apprenticeship.

Lave and Wenger (1991) explain that a CoP is, "a system of relationship between people, activities and the world; developing with time and in relation to other tangential and overlapping communities of practice" (p. 98). And this, they assert is a naturally occurring condition of the existence of knowledge. This framework enabled them to understand the transformation of novices to experts as they learned through mutual engagement in diverse, social and cultural settings. They posit that a CoP is not to be viewed as a formal organisation but one that evolves and learning is posited as mostly occurring through interactions among and through others. In their perspective, a CoP is not a store house of knowledge and skills involved in its activities. Instead, they assert it is "an intrinsic condition for the existence of knowledge, not least because it provides the interpretive support necessary for making sense of its heritage" (p. 98). Gee (2000) further informs that knowledge in a CoP is tacit and it is embedded within its "members' mental, social, and physical coordination with other members, tools and technologies." (p. 53). Gee asserts this means knowledge is not fixed as a set of skills in individual members but spread across "networks of relationships" across sites and various members. Thus an implication of this feature is that members in a CoP must have extensive knowledge as they may be involved in many stages of its common endeavour. In doing so they "reflect as a whole system" (p. 53) and not stand alone as individuals.

Another of its significant insights is that learning takes place when knowledge is presented unintentionally through authentic situations (Lave & Wenger, 1991) which is important to understanding the learning that takes place within everyday activities and experiences such as that of workplaces. It was also noted in all the five seminal studies located in various sites that Lave and Wenger (1991) observed, the social environment of the CoP practice was the real learning situation. This exemplifies another key premise which is, "the practice of the community creates the potential 'curriculum' " (p. 93) which however, only becomes accessible to the learners if they have legitimate peripheral status. Gee (2000) explains from Lave's (1996) perspective, learning is not equated with a "change of mind" as traditionally perceived but by "changing participation in changing practices", which eventually should also reflect in a change in identity. One criticism with regards to this premise on the "learning curriculum" and its affordances of apprenticeship to newcomers, comes from Fuller and Unwin (2003). They point out that Lave and Wenger (1991) have failed to mention the role of formal education, specifically that of the institutional arrangements" in newcomers' learning which they contend can facilitate "deep learning". The above perspectives specifically (J. Gee, 2000; Lave, 1996; Lave & Wenger, 1991) throw light on the dimension of learning in workplaces which is often not seen as a linear progression.

Theory of legitimate peripheral participation. Compared to the notion of lerning "in situ," Lave and Wenger (1991) conceptualised learning in situated learning as "more encompassing in intent…" (p. 31). Situated learning, according to them is an "integral part of generative social practice in the lived-in world." (p. 35). However, they assert, this does not mean learning should be considered as an "independently reifiable process that just happened to be located somewhere…" (p. 35). Lave and

Wenger's (1991) notion of learning draws on a theory of situated learning through legitimate peripheral participation in CoP. Lave and Wenger's (1991) main intent behind the theory of legitimate peripheral participation seems to present "an analytical viewpoint on learning, a way of understanding learning" (p. 40). The highlight is thus not on pedagogy but on the structure of social practice in which learning takes place.

In Lave and Wenger's (1991) study, the focus was on exploring the transition from apprentice to master, which is also seen as a transition from legitimate peripheral participation to full participation in a CoP. This premise is a central proposition in a CoP as the mastery of knowledge and skills requires novices to move towards full participation in the sociocultural practices of a community."(p. 29). On entry into the CoP, newcomers are accorded legitimate peripherality which is a defining characteristic of ways of belonging, and is therefore not only a crucial condition for learning, but also a constitutive element of its content. Legitimate peripherality also suggests that there are multiple and varied ways of being located in the fields of participation defined by a community and Peripheral participation is about being located in the social world. (Lave & Wenger, 1991, p. 35). Given this, the master-apprentice relationship is given significant importance in this learning. However, it should not to be misconstrued that the master-apprentice as the central characteristic of learning for the place of mastery is inherent in the organisation of a CoP (Amin & Roberts, 2008).

The notion of CoP however, has since evolved into a generative theoretical framework and is currently adopted across a wide range of disciplines (Wenger, 2010), namely in the fields of second language (L2) research (Leki, 2003; Morita, 2004) and even more so it has provided theoretical bases for understanding research on learning in workplaces (Boud & Middleton, 2003; Fuller et al., 2005; Ranse & Grealish, 2007).

Basically what is entailed in a CoP can be briefly explained as the process by which newcomers gradually move toward full participation in their given discourse community. This process is called Legitimate Peripheral Participation (LPP). Lave and Wenger's (1991) model has been used to examine a broad and varied language learning situations such as in Leiki's (2003) study on group projects in universities; academic writing for scholarly publication (Flowerdew, 2000); negotiating participation and identity in L2 academic communities (Morita, 2004). The next section discusses studies related to the domain of nursing.

Nursing

Nursing, once associated with traditional concepts such as humanitarian aims, feminine roles, and religious ideals has evolved (Shaw, 1993). Advances in nursing science and research have impacted both nursing education and practices and the re-examination of traditional nursing concepts (Shaw, 1993). According to Shaw, this evolving pattern began with Florence Nightingale, the first nurse-theorist and since then it has been consistently identifying its boundaries and domain. Subsequently, the evolving pattern of intellectual growth, and the integration of evidence -based practices to improve patient care, saw the acceptance of nursing into a scientific community as a unique discipline. The shift of nursing education into higher education institutions too has shaped it into an academic discipline (McKenna & Wellard, 2004).

In nursing, the work-based learning, where clinical practice takes place is a crucial component as it marks the initial preparation of the professional journey of a nurse (Nash et al., 2009). During this transitioning experience into the workplace, student nurses not only must learn the culture, rules and practices of nursing but also the language of the workplace (Cantrell, Browne, & Lupinacci, 2005; Festa et al., 1996). Researchers inform that although student nurses enter their multifaceted setting

of their workplace for their clinical practice with high enthusiasm to apply theory to practice, this phase is stressful (Elliot, 2002) while Nash et al. (2009) concur that clinical placements are perceived by novices as a "period of confusion and distress" (p. 48). Ashworth and Morrison (1991) cited in Nash et al. (2009) believe that this state could stem from their difficulty in differentiating the two contrasting roles that they have to assume: their role of learners and that of their short term membership of the patient care team. As a result of some of these aspects, learning to become a nurse is construed as complex and multifaceted.

Given this, researchers (Elliott, 2002; Nash et al., 2009) argue the success of nursing programmes largely depends on the effectiveness of their student nurses' clinical experience. For this reason, Orland-Barak and Wilhelm (2005) believe there is a need to examine student nurses' perspectives toward learning to become a nurse. Orland-Barack and Wilhelm suggest one way for novices to make sense of their lived experiences is through their personal perspectives. Freeman (1996) too concurs with Orland-Barack and Wilhelm, saying that these individual perspectives toward learning interact with the values, beliefs and practices that shape the praxis of nursing practice. If this is an important goal of nursing, then the preparation of student nurses becomes an issue which has to be brought under the spotlight.

Researchers (Cheek & Jones, 2003; Nash et al., 2009; Newton et al., 2009) call for deeper understanding and ongoing specialised support to make the workplace learning of novice student nurses a positive learning experience. However, Cheek and Jones claim that despite these assumptions, the preparation of nurses to enter their workplace still remains to be explored. They assert that in order for the educational preparation for nurses to be responsive to contemporary needs, then it has to begin with conceptions of the nursing workplace and the challenges nurses face. A review

of literature reveals several studies have investigated student nurses' transitioning into clinical settings (Andrews & Roberts, 2003; Nash et al., 2009; Newton et al., 2009). Most of these studies focused on the preparedness of the learners for professional practice of second or final year student nurses. It is acknowledged that these studies have added to the body of literature on learning in the workplace. Despite these studies having provided various insights and narratives of contemporary nursing workplaces, the issue of theory practice gap still appears to be a perennial problem.

Freestone, Thompson, and Williams (2006) state workplace learning has significant relevance to students entering their professional workplaces to "augment intellectual, professional and interpersonal skills and enhanced learning habits" (p. 237). Readings on different descriptions of changing workplaces further confirm the varied challenges facing newcomers' learning for the workplace (Folinsbee & Hunter, 2002). In the Malaysian context, for example Quek (2005) reiterates that various competencies must be developed in Malaysian students before they enter workplaces to enable effective transfer of learning to their workplace. The contention of literacy researchers (e.g., Folinsbee & Hunter, 2002; Parks, 2001; Searle, 2002) is that workplace learning during practicums facilitates students to acquire literacy of their profession which is seen essential in maintaining the "culture" and "the social order of their workplace" (p. 18). Workplace literacy practices of the nursing discourse community appears to be an aspect that has received less focus in the preparation of year one student nurses to enter their workplace, specifically that of reading (Parks, 2001). This review of literature however could not identify studies investigating the perspectives of year-one novice student nurses' experiences of reading their professional workplace text.

Target literacy practice. Many learners entering institutions of higher learning have literacy needs. Yet, an assertion is they are not met by standard academic pedagogies provided by these institutions (Paxton, 2007; Rose et al., 2008). Above all, Hyland (2002) points out that becoming competent in the literacy practices of a discipline is a way forward to gaining participation in their professional discourse community. In nursing too, acquiring the language and literacy practices has been recognized as an essential skill for newcomers to master (Gimenez, 2008; Whitehead, 2002). Reading PCN and medical records is a target literacy practice of clinicians (Nygren et al., 1998; Parker & Gardner, 1991) as they contain a wide range of data on patients. Year-one students are directly involved in the context of acute care patient care during their clinical practice and managing medication constitutes one of their crucial job scope during this period (Aitken et al., 2006). This nursing practice involves complex facets before medicine can be administered such as assessing patients' health, making goals for care: administering and monitoring effects of medicine, providing patient education and interdisciplinary collaboration (Manias & Bullock, 2002). And crucial data source for these purposes come from reading the vast amount of data presented in the medical records to the reader.

Based on the findings of their study, Nygren et al. (1998) found expert clinicians such as doctors were able to "rapidly" and almost effortlessly read, skim and even sometimes "skip" irrelevant paragraphs in the PCN, in their search for specific data to make assessments of relevance" to infer diseases, unexplained symptoms and make current decisions (p. 1462). While this can be said to be true for expert clinicians, can the same be said of novice year one student nurses? A review of literature on the experiences of even Neophyte nurses during their first year of nursing practice at the workplace showed that they found the experience extremely traumatic

and stressful (Manias & Bullock, 2002) due to various issues pointing to limitations of the pre-registration nurse education (Gerrish, 2000) and lack of correlation between educational input and the realities of the organisational culture (Manias & Bullock, 2002).

It cannot be disputed that proficient communication is vital in patient care among the healthcare team. The PCN is also sometimes referred to as medical record is a means through which this exchange of communication on patients takes place (Porter & Perry, 1999). The PCN is a compilation of permanent written documents or text types, by the multidisciplinary health professionals about in patients. This collection of texts relays an account of each episode of assessment of an in patient's health status and their management by the multidisciplinary health professionals. The information varies from initial assessment of patients, admission and demographic details, laboratory and radiologic reports, notes by consultants and by nurses and medication orders (Mosby's Medical Dictionary, 2009).

As researchers (Bianco, 2000; Kress, 2000) inform, semiotic changes that characterise the field of literacy is also evident in the workplace. An examination of the PCN reveals texts in the PCN are not solely based on rule-governed forms of language. Various forms of multimodal representational forms are increasingly becoming prominent (Kress, 2000). (Refer to Appendix O for a sample of a text from a PCN using modes other than language). Additionally, the texts are often written in a variety of handwriting typified by shorthand writing which includes the use of abbreviations, visuals and symbols with little elaboration. This makes reading the composite of texts in the PCN even more challenging. To add to the complexity, Parker and Gardner (1991) claim that PCN is viewed as medico-legal documents. What this implies is reading of the PCN requires a body of knowledge, a broader framework of

contextualisation in which this literacy event is embedded and a degree of competence. Additionally, year- one student nurses have to write a variety of nursing texts in a specific style. And writing these nursing texts too did not appear to be a simple task for specifically when the data needed to write these texts had to come as a result of their reading of the composite of multiple Patient's Case Notes (PCN). The need for student nurses to demonstrate various competencies and abilities to read, interpret, evaluate and use the data contained in the multiple texts in the PCN begins as soon as they enter their workplace community of practice for their clinical practice. Hull (1993) is rightfully so when she argues that while we can analyse workplace texts for example to see what grade level it is written, it will not tell the complex rules that govern the use of the text.

Literature on the transitioning experience of newcomers into their workplace informs newcomers are generally not equipped to make sense of the myriad of surprises that potentially accompany newcomers' transitioning into the workplace (Eraut, 2006; Louis, 1980; Parks, 2001). There is a consensus among researchers that there is a need for range of learning support. One potential area that has been identified is to understand how newcomers making the initial transition to their workplace, explore how novices acquire the target literacy practices of their discourse community related to the professional text, at the workplace as Park (2001) claims.

Summary of Chapter

According to Hart (1998) doing a review of literature enables the researcher to develop a personal as well as a public dimension of the subject of the study. The personal dimension is to develop the skills of the researcher while the latter serves the educational aim of carrying the intended study. From the arguments reviewed, for the novices to read and interpret the PCN as experts do, the reading has to be seen in the

context of the social, cultural and historical practices to which they are integral and a part of, as postulated by NLS (2002) researchers. Additionally, the review on notions of workplace learning revealed that learning that takes place is not incidental or an ad hoc enterprise. Rather workplace participatory practices have regulated pedagogical structures intended to bring learning outcomes associated with engagement and the structuring of specific procedures albeit a motive to maintain the continuity of the workplace practices. Besides, this review has revealed despite the battles fought, there is no simple view of what constitutes literacy, suggesting the battles have still not ended.

The current study sought to understand how the text types of the PCN which mediates the varied literacy practices of their ward settings were read by the novices as they positioned themselves as readers and interpreters within the CoP at their workplace. However, the shift from an autonomous view of literacy to how people use literacy in ways that are conditioned by social cultural contexts, appears to be a more integrated approach to situate this study. This review, besides helping in identifying the gap in the literature to locate the current study, also informed both data analysis and in substantiating findings with evidence. This study was carried out to contribute to the field of literacy on workplace learning by investigating novice nurses reading their professional workplace text.

Chapter 3 Methodology

Introduction

This chapter provides a discussion on the research design and methodology that was used in this qualitative case study. The first section addresses the research design, and the rationale for its selection. Following this is the description on the selection of the site: both the Nursing college which is the educational setting of the participants where the English language classroom is located and their workplace setting: the teaching hospital, the process for gaining entry into the site and ethical issues. The third section discusses the criteria guiding selection of the participants. It also includes a summary of the preliminary study that was conducted in the context of hospital settings, where this cohort of student nurses had their initial exposure (referred to as the clinical experience) to the hospital setting during their first semester. While the fourth section focuses on the techniques employed in the qualitative data collection process. The fifth section provides information on the procedures used in analysing the data. The final section emphasises validity and reliability issues. The two key routine nursing practices - Change of Shift and Medication serving that provided the context to investigate the main phenomenon of the study (i.e. how the novices learned to read and interpret the various texts of the PCN, in order to gather data on the patients assigned under their care) is not included in this chapter but is discussed in detail in Chapter Four.

The Research Design

This study uses a case study approach within a qualitative interpretive research design. By using qualitative methods of data collection rather than quantitative methods, I was able to investigate selected literacy events for example Change of Shift, Medication Serving with great depth and breadth. This allowed me to pay attention to

detail, context and nuances and to overcome limitations of predetermined quantitative instruments and categories. According to Paxton (2007), a qualitative interpretive research allows for in-depth understanding of what is specific to a particular group. A feature of qualitative case study is that it lends itself to extended period of fieldwork to investigate a contemporary phenomenon within real-life, where complexity occurs (Marshall & Rossman, 2006; Yin, 2012). Being a product of a social context, acquiring disciplinary workplace literacy is said to be complex (Morita, 2004). Thus, a qualitative case study research design allowed me to capture the nuances, interactions, the complexities and observed behaviour of the participants, while they were being oriented into the practice of nursing and to the target literacy practices of their workplace communities of practice (CoP). With this design I was able to develop a holistic description of the participants' actual engagement in ward settings and identify the emergence of a range of person-dependent factors that shaped the process of participation and learning.

The following section presents a concise account of the sites of the study- the Nursing College and the Teaching hospital.

Rationale for Selection of Site

The rationale for including two sites in this study stems from the fact that the educational preparation of student nurses takes place basically at two sites. The classrooms of the Nursing College are the sites of nursing education while their actual clinical learning takes place at the Teaching hospital, the site of their workplace. The main research question is a "how" question. As such the study focused on exploring the phenomenon of how the novices learned to acquire the target literacy practices of their workplace discourse community naturally. Hence, the primary site of the study was the clinical environment hospital setting, where this apprenticeship was taking

place during the duration of their clinical practice. However this section also includes a brief historical perspective of the site of the nursing college, which incidentally is also the English language learning environment in the classrooms of the college of the participants.

Nursing college: a brief historical perspective. The educational training of the participants was located in an established Nursing college founded in 1967. The main aim of the college is to meet the demands for trained professional nurses to provide competent care in various disciplines for the fast growing university hospital in the Klang valley, in the nation's capital state. The Nursing College thus comes under the purview of this large established teaching hospital of a premier university in Malaysia. From the time of its inception until recently in 2012, the Nursing College was situated strategically within the grounds of the teaching hospital. However, the teaching hospital in keeping abreast with the university is currently also undergoing rapid developments.

Consequently, in April of 2012, the Nursing College, along with three other colleges of health sciences namely, the college of Radiography, the college of Medical Laboratory Technologist and a recently established College for Advanced Diploma in Nursing have been brought under one roof at newly acquired 21 story annex building of the university, situated just a few kilometers away from the hospital. The main objective of the merger is to strengthen the administration and academic supervision of all the programs. This had also resulted in a change of name of the Nursing College to reflect the merger under the name College of Allied Health Sciences (COHES).

COHES is headed by a Principal and four Program Heads: each for Advanced Diploma in Nursing, Diploma in Nursing, Diploma in Radiography and Diploma in Medical Lab Technologist. The objective of this move is to provide the best management facility to advance research and innovation. The Nursing College offers a three year full time diploma in nursing course in all aspects of professional nursing practice. The training of nurses is alternated between learning in the classrooms of the Nursing College and the Teaching hospital. The students thus undergo their clinical practice sessions at this teaching hospital and on graduation the majority of the trained nurses are also placed at the same hospital.

The teaching hospital. The Teaching Hospital, which was established in 1962, is part of the premier university of the country. Health services, learning and research are the three main objectives of this teaching hospital. The faculty of medicine of the university prides itself in having produced thousands of medical, pharmacy, biomedical and nursing graduates who have in turn served the nation diligently. The faculty of medicine has since expanded its curriculum to postgraduate degree and research programmes not only to Malaysians from all ethnic backgrounds but also to international students from diverse cultures such as Iran, Sudan, Iraq, the Maldives, Nigeria and Mynamar. The diversity of student communities has transformed the learning and working environment on campus into a vibrant multicultural and multilingual environment. Currently, the university offers graduate programmes leading to an MSc or PhD in various other biomedical fields including nursing.

Site of the study. The study was conducted within the context of a few selected wards, namely the Medical, Surgical and Geriatric wards in a large fast-paced teaching hospital in Kuala Lumpur with its own distinct practices. The wards were chosen as they were designated as first compulsory postings for the novices where the

focus of training was to equip them with core clinical skills to provide care for acutely unwell patients. The site of this established hospital was chosen mainly because the clinical learning environment of this nursing college has an established and accredited nursing programme. Additionally, during the phase of data collection, the nursing college was still located in the context of hospital settings and this facilitated the researcher to liaise with both the nurse educators at the nursing college and nurse tutors of the student nurses, during their clinical practice at the workplace. Exploring this natural setting where learning is embedded in authentic activities, context and culture enabled me to understand student nurses' perspectives of their workplace literacy experiences and the underlying context that shaped these perspectives of their clinical placement. Additionally the institution was chosen largely because of the phenomenon that was being investigated in the study: the legitimate peripheral participation of the novice year-one student nurses at their actual workplace community of practice.

Viewing learning as legitimate peripheral participation involves being located in the ambient social cultural practices of the community which is also conceived as an initial form of membership of the novices. Thus the rationale for choosing this site was based on the belief that it could provide the novices, "a field for mature practice of what they are learning to do" (Lave & Wenger, 1991, p. 110) and is supportive of the nursing institution's mission in providing the hospital with quality nursing graduates.

Gaining entry. The initial interview with the Principal of the Nursing College, the main gatekeeper to the entrance of the site was helpful in securing information on various aspects, specifically pertaining to general profile of students, gaining entry into both the workplace and classrooms of the college and ethical considerations. In fact, the need to improve the reading abilities of the student nurses specifically, the reading

of the PCN, who have transitioned into the nursing college, surfaced during this interview. With her closing utterance "*anything for the betterment of nursing*" (Int.SH/2.lin76) on our first meeting, the main gatekeeper of the nursing school, assured me of her support. I thus gained the trust of the principal and a verbal permission to enter the site of the nursing college and speak to nurse educators at the college to identify issues related to student nurses enrolled in a three-year Diploma in Nursing programme. Subsequently, in negotiating entry into the actual ward settings, prior to conducting the actual study, I had to seek permission from a different cohort of gatekeepers: staff nurses, nurse tutors, ward sisters and a matron. Meanwhile written information on the intended study was submitted to the Medical Ethics Committee of the hospital, to obtain permission to enter ward settings, to conduct the preliminary study and the actual study later. The consent of the Medical Ethics committee was subsequently obtained (Refer to Appendix A for the preliminary study and Appendix B, for the actual study).

English in the context of the Nursing Program

Given the multicultural nature of the hospital environment and the fact that English has been accepted as the language of medical communication (Ms Sharifah), it is therefore, not surprising that the academic success of students pursuing nursing requires high levels of English proficiency. However, based on findings from interviews with senior nursing program coordinators indicate that English language education has only recently received prominent attention in the context of the Nursing curriculum of the college. This move was in line with the upgrading and change in status of the then nursing program from a certificate-level course to a Diploma course in 1992. The upgrading also saw new entry requirements into the nursing program and among them a compulsory credit in English in the SPM examination.

Personal communication with three senior nursing lecturers and heads of programs, Ms Zalinda, Ms Foo, Ms Zai revealed that English was also made the medium of instruction of diploma in nursing program thereafter. However, according to them English per se as a subject was only introduced into the Diploma in Nursing Syllabus beginning in 2008/2009. Personal communication with them further revealed that English language, was a component subject in a group of studies known as Nursing Behavioral Sciences and was given the code *NBS*. As documentation regarding the subject or the pro forma was not readily available, Ms Za explained that the sudden requirement to include a three hour per week of English as a compulsory subject into their already tight nursing specific curriculum posed various constraints on time and even finding language instructors who could fit into their schedule.

A telephone interview with another former head of the English program, Ms Lee reiterated the same concerns. Ms Lee further revealed the subject has been outsourced to numerous individual teachers and institutions since its inception into the curriculum. Hence, she acknowledged continuity in terms of teaching objectives and language learning could not be ascertained. However she maintained that the course design of the proposed English program was English for Specific Purposes (ESP). Nevertheless, as I had access to the site of the classrooms, I was privy to insider perspective through the principal and a tutor regarding the English language diploma course. The principal and the tutor had informed me that as the college had decided it was compulsory for all students to buy a local English newspaper, they decided to use newspaper activities as a source material to learn English. Subsequently, outsourced teachers were instructed to use an NIE (Newspapers in Education) approach to teach language and plan activities to improve students' reading skills. The main objective of the course was to increase students' proficiency

and knowledge of various content areas not necessarily related to nursing or medicine. Additionally, the course was an intensive course and was taught over a duration of one semester in a lecture mode. I could not establish or verify the nature of the English language course of the Diploma programme, in the absence of clear learning objectives or a pro forma. Thus, based on this information made accessible through insider perspective it appears that the English language program of the classroom was decontextualized from the workplace literacy needs of the participants. Moreover, it could not also be ascertained if the English language classroom was indeed ESP in nature.

Preliminary Study

Yin (2012) believes that a preliminary study can be conducted in a setting that closely resembles the actual site that has been selected for the case study. However, in this preliminary study I was privileged an early entry of four weeks into the actual site, to observe the year-one semester one student nurses' six weeks' clinical experience at their prospective workplace. This was based on a verbal agreement between the gatekeepers: the nursing school principal and the ward sisters at the hospital. Subsequently, official request to enter the site and to conduct the preliminary study was approved by the Ethics Committee of the Hospital. According to Marshall and Rossman (2006) a preliminary study prepares the researcher in identifying assumptions and personal bias.

The findings of the preliminary study were beneficial in several ways. Being in the site and adopting a naturalistic approach, helped me to develop insights into a complex workplace target literacy practice involving the PCN which these student nurses have to mediate on a daily routine. Additionally, I also had a sense of other potential issues related to student nurses such as their social interactions with other

individuals, their knowledge of the context, and their identity struggles and importantly a perspective on the English language classroom of the nursing program. Data from the preliminary study enabled the research questions and research objectives to be refined. Besides, an observational protocol (see Appendix C) and a semi structured interview containing a list of issues was developed (see Appendix D). These tools provided a common framework for recording information for the actual study. The initial analysis of the data from the preliminary study enabled me to make some pertinent decisions regarding participant selection for the actual study. The study also enabled me to make contact with nurse tutors to obtain their views on clinical practice. This contact also allowed me to obtain information pertaining to learning objectives, schedules and dates for clinical practice in semester two.

Participant Selection

The current study focused on the legitimate peripheral participation of year-one student Nurses into their CoP. They had transitioned from the more controlled settings of their classrooms into the "fast paced and highly complex clinical setting" (Kelly, 2007, p. 885) for their first clinical practice. To recruit the participants of this study, on completion of the preliminary study I was given permission by the principal to give a talk to the year-one student students on the intended study. The talk included the objectives of the study, the duration and what the implications of being a participant of the study mean. After the talk, the students were asked to volunteer for the study. Out of the total of 170, fifteen students volunteered. However, not all were included in the study. Only eight, who met the selection criteria were ultimately chosen. The rationale for this decision was because the study intended to seek an in-depth understanding of the central phenomenon of the study.

I had decided to use purposeful sampling as proposed by Creswell (2012) based on the intent to represent what is typical of the students in this particular nursing institution. However, I also decided that the participants need to embody several characteristics. A number of criteria that was used in deliberating who would participate is discussed next.

Willingness. Firstly, the participants were selected on the criteria of their willingness to be part of the study and work with me while undergoing the rigor of clinical practice. This was considered an important criterion as it was felt that only those who believed in the usefulness of the study and were willing to spend their time to help realise the objectives of the study would contribute the kind of data that was necessary. As the study involved an extended period (twelve weeks), it was felt that staying power which seems a corollary to willingness to participate was a factor that was taken into account.

Representativeness. This was a case study which prioritised depth of findings over reliability as measured by quantitative studies. However, it was clear that the validity of the data and its generalisability would be compromised by a sample that was skewed. So although fifteen volunteered, all fifteen were not taken. If all fifteen were taken, it was felt that the depth of a case study approach would be lost. In the selection of the eight participants that was ultimately selected, issues of representativeness were taken into account. Issues considered in participant selection were related to their educational background such as: entry level qualifications, language proficiency and learning styles.

Language proficiency. It seemed quite clear from the outset that the majority of the nursing students come from national Malaysian secondary schools, where Malay, the national language, is the language of instruction and learning. In the target medical setting, the teaching and the learning was primarily through the medium of English. One criterion for selection therefore was English Language proficiency. To understand how the participants acquired competency of target workplace literacy in a context where English is widely used, it was assumed necessary to select only participants who are proficient and were able to verbalize their thoughts and experiences in English. However, this would have skewed the sample as language proficiency was one issue that the students needed to take into account in developing literacy practices. Thus, learners who were less proficient were also selected. However, the researcher has also allowed practicalities of the study to play a part. For example, not all in the group have the same criteria.

Some were chosen in terms of personality differences. Rul and Eva stood out as extroverts. Additionally, both of them were also willing to participate and were readily available for interviews unlike Yaaz and Ame. Both of them are conscientious and diligent students; however they were not easily contactable after their shift for the day was over. In terms of qualifications, they again possessed varied educational backgrounds. For example, Arthi, Hera, Ame, Iz and Eva, like the majority of the students who had entered the Diploma in nursing programme held a Sijil Pelajaran Malaysia or Malaysian School Certificate (equivalent to the O levels) awarded on completion of Secondary School education.

Yaaz, on the other hand possessed a degree in Biochemistry, while Rul was a diploma holder in Islamic studies. In terms of proficiency some participants like Eva, Rul and Arthi were more proficient and articulate than the others. Inevitably this

attribute of these participants had lent itself to the researcher gaining more data from them than the others like Ame, Hera and Izza. Although one of the decisions had been dictated by the practicalities, the net result in terms of typicality has been good. I had a good mix of participants of varied educational background, range of ability, proficiency and their goals in terms of their professional development. I had tried as far as possible to replicate in the participant sample, the sample in the nursing profession as a whole and the results have been correspondingly exploratory. They fulfilled the selection criterion – the typicality of the cases. The following section provides a profile of the participants of the study.

Profile of participants. Eight year-one student nurses in their semester two from the nursing institution were chosen as participants of the study. They differed in terms of ethnicity, age, gender, educational, and proficiency levels. However, each one of them revealed that they were clear on their chosen career path in nursing. As mentioned in the earlier section they were chosen based on the purposive sampling strategy of typicality. The intent of this strategy was to represent what is typical of the students in this particular nursing institution. I thus also decided on the characteristics that the participants need to embody. Insights provided by each of the participants helped me to acquire an in-depth understanding of the phenomenon of the study. The following section provides a brief profile of each of the participants of the study.

Arthi. Petite and pleasant looking, Arthi was one of my first participants chosen for the study. Arthi like the majority of the year one students entered the Diploma in nursing programme with a Sijil Pelajaran Malaysia or Malaysian School Certificate awarded on completion of Secondary School education. She revealed that nursing was never on her mind even in her final year of school. However, the loss of a loved one, her grandmother the following year was a turning point in her decision to

take up nursing as her career. Arthi claims she had only since entering nursing school, made a conscious effort to use English in all her dealings. She confesses she is awed by doctors' personality, insights, especially because of the knowledge they exude, their personality and ability to speak medical language, whom she hopes to emulate (Int2.Arth.line.105-108). Despite the many challenges she faces as a novice, Arthi is unwavering in her decision to stay on and to be a "knowledgeable" student. She ended one interview with a fervent wish that doctors and specialists would actually ask novices like her directly about the condition of their patients (P.Obs.Int. line17).

Rul. Rul is a male student nurse and stands out in this cohort of predominantly female student nurses. Rul is articulate, fairly proficient and a motivated learner. Rul enrolled in the nursing college after obtaining a diploma in Islamic studies and is 22 years old. From my interviews with him I am able to see his aspirations and his sense of commitment to his chosen career. Like Arthi, he is goal-oriented and aims to be "a knowledgeable, skilful staff nurse and most importantly be confident" (P.Obs.Int.Rul.line. 99-100). Rul believes only then can he earn the respect of everyone: his peers and other members of the multidisciplinary health team. Rul is sensitive to the existence of power relations within his own community of practice and also issues related to identity.

Yaaz. At 23, Yaaz, is one of the oldest participants in this cohort of student nurses of the current intake. She also possesses a degree in biochemistry. Her age, her strong educational background in medical sciences, and her brief working experience in a laboratory, and strong motivation to pursue a diploma programme in nursing appears to have given her an edge over the others. Yaaz was first on the Dean's list for the second consecutive time at the time this interview was conducted. Yaaz's academic achievement too should not come as a surprise, considering her assets. Her

diligence, her passion and her sense of responsibility has even caught the attention of other experts in the fields such as doctors and staff nurses, who sometimes look specifically for her to assist them in some specific procedure. She, too, makes a concerted effort to improve her proficiency in acquiring medical language which she believes is impeding her sense making in reading the PCN. Yaaz is petite but a bundle of energy. She is always on the move and this particular trait in her has not gone unnoticed. On a number of occasions I heard doctors and even a consultant calling her by her name to assist or chaperon them when attending to patients.

Eva. Eva is proficient and articulate. An additional trait that worked in my favour is she was punctual for interviews and generous with data and her time. This characteristic would explain why I had more data from her than others. Eva revealed that after obtaining her Malaysian School Certificate, she made up her mind to come into nursing due to the influence of an aunt who is a staff nurse. Early interviews with her revealed how elated she was when she realised that like medical students, the PCN was also her workplace text. However, the pervasive presence of medical terminology snuffed out the elation of this bubbly novice and made her aware of the complexity of reading the PCN.

Hera. Hera is another participant of the study. Unlike, Eva, Hera revealed during an interview that nursing was not her first choice for career soon after she completed schooling. She had wanted to be a teacher but her parents wanted her to be nurse like her aunt. Her aunt subsequently had influenced her positively on her decision to take up nursing her career. Hera at 165 cm had the ideal height for a nurse and is among the tallest in this cohort of female student nurses. A combination of height and good looks seemed to have given her an air of confidence that I will find out later was just my initial judgment. Hera, like many of the novice participants was

a bundle of nerves when they had to perform specific nursing practices. She too makes an effort to speak in a smattering of English during our brief encounters at doorways and during interviews. Hera was confident though, that she will be able to read the PCN competently as she becomes a habitual user of the PCN.

Ame. Ame is popular, cheeky and witty. Not being proficient did not stop her from making quiet tongue- in-cheek remarks in English and often sends her friends into fits of laughter which had to be suppressed quickly in view of their setting. She too came immediately into nursing on obtaining the SPM or the Malaysian School Certificate. However, she is studious and a high achiever like Yaaz. She too has been a recipient of the Dean's award for best academic performance on two occasions. However, she revealed during an informal interview in the ward that she had to put in many hours after her shift is over, to sharpen her procedural skills as well as theoretical knowledge; hence she was not always available for interviews.

Ri. Ri came into the programme with a Malaysian School Certificate. Based on my observations Ri has most of the attributes needed by a student nurse. With a height of 171cm, he has an ideal physique that a nurse ought to have in view of the physical demands of nursing tasks. Ri is also gentle, soft spoken, caring and meticulous young man. However, Ri is of low English language proficiency and this often posed him challenges in reading, writing extracting and making sense of data. During an interview, Ri revealed that his low proficiency had often caused an ebb in his confidence level especially during the transitioning phase. Thus, he felt that he always needed the confirmation and supervision of the experts of the community (P.Obs.Int. Ri/Yz.line.26-29) as he was afraid of bringing harm to his patients.

Izza. Izza entered the programme with her Malaysian School Certificate and she is proficient. She is a committed young woman. I sensed evidence of her

commitment and enthusiasm during her first Medication Serving when she was down with a debilitating flu (Obs. Izza. Lines 342-346). Despite being told to take a day off, she pleaded with her tutor that she did want to miss this significant event and she would see the doctor after she had served her patients their medicine. Yet in an interview, unlike the other novices, Izza revealed she did not have an inherent interest in nursing but she is aware of the job prospects of nursing in monetary terms. She joined the programme on the insistence of her family. She revealed that she knows it was not an "*intrinsic motivation but is learning to like it"* (Int, Izza.line45-46) as her engagement in her tasks increases.

The section on vignettes outlining the characteristics of the participants was intended to draw attention to the diverse qualities of the informants although they represented the criterion of typicality.

Setting the Boundary of the Case

Given that a case study takes place in a bounded context (Merriam, 2009; Miles & Huberman, 1994) the need to ensure a tight case design arises to prevent indiscriminate data collection. Sampling, physical location, specific events, time, activities, were among the elements that will used to set the "somewhat indeterminate boundary" of the case in this study (Merriam, 2009, p. 25). An initial aspect that defined the boundary, involved the sampling operations. Only first year student nurses undergoing clinical practice formed the primary unit of analysis. However, the study also encompassed the immediate subsets of people nested in their social contexts (e.g., nurse tutors, nurse principal, staff nurses, and doctors) who facilitate student nurses' learning process in the clinical setting.

Second, the physical location of the case was confined to the wards in the hospital, where the participants were placed during their clinical practice. Third, it was

assumed that student nurses may also be involved in other literacy events (e.g. writing memos) during their eight hour mandated time in the wards. However, the boundary in this study focused on two specific workplace literacy events namely Change of Shift and Medication Serving, in which the reading of the PCN was embedded.

The phenomenon investigated in this study was how year- one student nurses learned to read and interpret the multiple texts of the PCN for delivering safe health care to the patients assigned to them. As student nurses might refer to PCN at any time based on the health status of their patients, for feasibility purposes the reading of the PCN might be fixed to the crucial events such as during Medication Serving or when they participated in Change of Shift, when the PCN has to be closely referred to. This was done so as not to obstruct the flow of activities especially during the peak hours when the multidisciplinary health professionals are reviewing their patients.

Time also features as a boundary in this case. The data collection was carried out between the 10 to 12 weeks of the participants' clinical practice in the context of hospital setting, after which they go back to classroom learning. Besides, it also marked the end of their status as first year student nurses. Thus by bounding some of the above aspects, I hoped to construct a tighter design for the case in study as postulated by researchers (Geertz, 1973). The next section discusses the data collection methods employed in the study and the rationale for using them.

Data Collection Procedures

Marshall and Rossman (2006) state data analysis in qualitative studies is a complex process involving several steps. It began with collecting the data, organising them while simultaneously analysing the data to build a rational interpretation and finally writing the report for the study. Marshall and Rossman's (2006) reminder that data-recording strategies should be appropriate to the settings and the sensitivities of

participants, was adhered to. For instance, due to the nature of hospitals, the setting of the study, the data collection procedure were done cautiously so as not to appear intrusive or be in the way of the flow of daily events and the setting. Hence cameras and tape recorders were not included as data collection devices when I was recording observations while in clinical settings. Data for the study were obtained through three sources of qualitative data collection: observations, interviews and analysis of documents. The rationale for employing the various data collection procedures depended on the specifics of the research questions and is discussed in the next section.

Observations. Given the intensity of healthcare work (Newton et al., 2009) and the fact the student nurses were actually being trained to carry out actual nursing practices at the workplace, an appropriate observational role for the researcher was that of a non-participant observer. This role allowed me to gather detailed descriptions without tempering the reality of the setting or that of the participants. The purpose was to gain a sense of the site and the people, the events in the few selected wards, namely the Medical and Surgical wards that were compulsory postings for novices.

As a non-participant observer I was on the periphery to observe and record the phenomenon as it unfolds (Creswell, 2008) by reporting as observed directly (p. 11). This role was ideal as it removed issues pertaining to power relationships. Specifically it also saw the participants giving their responses without concerns of fear. The observations were recorded as field notes (refer to Appendix J for a sample of observations in the form of field notes). Direct observations allowed me to assume simultaneously varied roles such as recording information as it happens in the setting and capturing actual behaviour of individuals (Spradely, 1980), especially that of the participants and the experts members of the community of practice. As Merriam (2009) states, the researcher finds it impossible to observe everything. Hence I used a

number of criteria based on the research problem and theoretical framework to guide the framing of the observation protocol. In addition to what should be observed, the protocol also guided who should be observed (Appendix C).

Direct observations took place over a period of 10 to 11weeks. A minimum of three to four observations (depending on the point of saturation of data) were carried out on each of the participants during the length of their clinical practice. The duration of observations on each of the participants lasted between 3-4 hours a day. The observations focused on capturing the novice students' participation and learning in key nursing events such as Medication Serving, Passing Report and Change of Shift and during assessments, when the participants had to read the PCN frequently.

Researchers (Dey, 2003; Silverman, 2006) suggest that in qualitative data analysis there is a need to consider an account of the spatial context, the physical setting, as a means of embedding the actions and activities. Lave and Wenger (1991) inform that learning at the workplace involves people, institutional settings and shared resources. This learning is posited as dependent on social interactive relationships of the novices with the more experienced others. Hence, each observation was guided by the specifics of the research questions. For example, research question one focused on understanding the participants' initial textual experience of using the PCN during the first three weeks of their transitioning into their workplace. Thus to obtain first hand data of activities, events, or situations as Merriam (2008) proposes, I included these dimensions when drafting the observation protocol (refer to Appendix B). Hence, section A of the observational protocol focused more on obtaining a detailed description of events and actions performed by the participants during the literacy event i.e. while reading the texts contained in PCN for varied purposes during the first three weeks. While, section B of the observational protocol guided in recording field

notes related to the specifics of research question two. Essentially it focused on the components of situated learning such as the: physical, social cultural context of the literacy event and the interactions taking place between the participants and other informed individuals that facilitated the novices' reading and the sense making process of the multiple text types that constituted the PCN. I also focused on specific moments and occasions when the novice participants had the opportunity to take possession of the PCN- the shared artefact of the workplace, and the subsequent actions taken by the participant.

Interviews. Besides observations, data were also collected through a series of different types of interviews: both informal group interviews and semi-structured interviews with the participants and related informed individuals (e.g., nurse tutor, ward sister, matron, and a specialist). Informed individuals were also key informants as they were directly involved in facilitating the student nurses' participation in the target literacy practices of their discourse community. Interviews were largely informed by the observations and document analysis. As Cohen, Manion and Morrison (2000) state interviews are considered a principle method of gathering data due to their direct link to research objectives. Most significantly interviews "provided access into a person's head" (p. 268). Therefore, the justification for having semi structured and informal group interviews with the participants was to obtain an in depth understanding of their personal experiences, as they participated in the target literacy practices and other activities in the lived world of their authentic workplace communities. On the other hand, interviews conducted with expert members were aimed, as Yin (2012) states, to "corroborate and augment evidence" (p. 81) obtained from other sources such as from the field based observation notes and documents.

Cohen, Manion, and Morrison (2000) explain that interviews also provide opportunities to clarify "doubtful points" as the researcher's knowledge of some of the practices of nursing were still "vague" at the initial stages of the study. Additionally, personal communication method (face to face) with two individuals who are executive heads of the faculty of medicine the Dean and the Principal of the Nursing College respectively were also conducted. With the participants, the first of the two semi structured interviews, took place during the first three weeks of their entry into the workplace to begin their actual clinical practice as a novices. These two interviews functioned to capture the individual novices' learning experience, their views and personal stories of having to use their professional workplace text, as they transitioned from the classroom to the workplace. Specifically, it was to also to understand the participants' personal experiences as they participated as newcomers from the peripherals of their authentic workplace communities of practice. I was not able to keep this proposed schedule with some participants like Hera and Ri, partly due to their tight after-shifts schedules, at the practical rooms of the nursing classrooms. They, like many other year-one students were often required to report to the practical rooms of the classrooms setting, to refine their nursing procedures and skills. In these cases, I used open ended group interview, which as Yin (2012) asserts lends itself in motivating participants to provide more insights into the case.

The second, semi structured interview was conducted before the end of their clinical practice to understand the participants' perspectives on the routine events that take place in the ward settings where they participated along with expert staff nurses in activities of CS or under the supervision of their tutors in the practice of Passing Report. The semi structured interviews enabled me to capture " a few topics that may help uncover the participants' views on the phenomenon of interest" (Marshall &

Rossman, 2006, p. 101) namely the challenges they faced in reading and making sense of the data in the various text types that made up the PCN during various occasions and events. The rationale for scheduling the interviews around the events were based on the assumption that the participants would have to read and interpret data found in various text types (e.g., Case history of patients, the Medication Orders) before their participation in the practice of nursing, under close supervision of experts specifically their tutors.

The third semi structured interview, which I refer to as a post observation interview was scheduled at the end of the clinical practice week upon completing my collection of data from the field. As, Merriam (2009) posits justification for this interview was necessary to gain insights on the things about the participants that which the researcher could not observe such as feelings, thoughts, personal experiences of their participation as well as non-participation in their CoP (see Appendix K for a sample of Yaaz's post observation interview). The post observation interviews with the participants lasted between 40 minutes to an hour. Interview protocol in (Appendix F) was developed for this purpose. This interview was useful as the participants had overcome some of their earlier inhibitions by then and had become comfortable interacting with me and were also showing an interest in the objectives of this study, namely on significance of reading and interpreting the texts contained in the folder. The focus of the first interview was on understanding the personal experiences of the participants and their preparedness for using the core text of their workplace on entry into their community of practice. The questions were guided by a range of activities of their CoP and theoretical framework of the CoP. The second interview protocol (Appendix E) meanwhile was intended to focus on the social interactive relationships of the participants with other informed individuals in their workplace CoP that

facilitated their interpretation of the PCN and participation in the centripetal activities of their CoP.

The focus of questions 13 to 19 in the interview protocol was on gaining insights into the significance of this aspect of the literacy event. Additionally, two or more interviews were scheduled with specific individuals who facilitated the newcomers' process of becoming a full member of the community. The interviews were guided by a list of questions aimed at obtaining responses to answer the two research questions. Interview protocol B was used with individual(s) who are knowledgeable of the context that is being researched (Gillham, 2005), such as the nursing college (e.g., Principal of the nursing college, Nurse Tutors). One other interview (see Appendix C) was conducted with individuals with whom the participants have to interact in ward settings (for example ward sister, matron, staff nurse). The purpose of interviewing these individuals was to capture the voices of the experts at the workplace, with whom the participants have to interact during their learning process and also for obtaining clarity and triangulation of observations (see Appendix I: a sample of an interview with a senior tutor).

In educational research group interviewing is a means of collecting data. The rationale to include group interviews was firstly based on Watts and Ebbutt's (1987) suggestion that such interviews can generate a broad gamut of responses rather than from an individual participant. Another justification for group interviewing was because it was used as a time-saving impetus as it brought all eight participants together with varied views on the main issue that was being explored. Although logistics and organisational issues were deterring, the net result according to proponents of this method were positive. Group interviewing not only enabled the

group to hear the views of others on a common issue but also yielded a richer collection of data (Watts & Ebbutt, 1987).

I employed three group interviews lasting between 20 -30 minutes during the duration of the study to gain insights and identify the perceptions of the novices' on their transitioning experience into their CoP, their participation in nursing events such as Medication Serving, CS and finally on how they learned to read their professional text during these events. Because of time constraints each of the group interviews focused on one specific aspect of participants' learning and participation. For example the purpose of the second interview session was to understand the challenges they faced when they had to read the Medication Kardex, a non-linear text during Medication serving while the focus of the third interview was on the various strategies participants used to facilitate their reading and interpretive efforts.

Documents. Documents formed another source of data to capture the nuances of the participants' experiences of their participation in their workplace communities. Relevant documents made accessible to me were analysed to obtain data specifically for verification. Documents that I reviewed were namely work-related documents of the hospital such as excerpts reproduced from, for example, doctors' Case Notes adhering to issues of confidentiality, specifically the PCN files, dummy text types for example Non-Parenteral Prescription and Administration Charts used by the participants to practice reading in the classroom. As Bogdan and Biklen (2007) explain, documents produced by the participants would reveal "evidence as to how the situation appeared to the actors ... and what meanings various factors have for the participants" (p. 178). For example Rul's hand drawn multimodal mind map containing jottings of a list of tasks (see Fig. 4.4) created during his peripheral participation in CS after several weeks into clinical practice revealed not only a

change in his learning style but was also indicative of gradual change in identity. An assumption is these documents that were appropriated as a consequence of the participants' reading of PCN could be used to complement data derived from interviews and observations. In conclusion, as I was an outsider to the field of nursing, the rationale to include document analysis was based on the following objectives:

1. to identify the perspectives of the institution's aims in training the students. The use of the documents such as the, NRP 1002 Clinical Practice 6C (refer to appendix G) provided me with this perspective.
2. to obtain documents which show what kinds ongoing assessment undertaken to verify whether the participants are on the way to achieving objective number one above (refer to appendix H for sample of document on assessment)
3. Get examples of the means used in achieving objective one.

The next segment discusses data analysis procedures used in this study. The justification to analyse these documents arose from the need to triangulate, for example analysis of information from interviews with participants and informed others with the analysis of the researcher's observation field notes.

Data Analysis Procedures

Data analysis in qualitative studies is aimed at effecting "some order, structure and interpretation" to the massive amount of data collected (Marshall & Rossman, 2006, p. 154). Another of its aims according to them is to ascribe general statements to relationships and underlying themes. According to Miles and Huberman (1994), the data analysis process encompasses three concurrent phases of activities namely data reduction, data display, and conclusion drawing /verification. Data reduction, whereby detailed, lengthy, written or transcribed raw notes are simplified, abstracted, and transformed into manageable chunks is the initial stage of data analysis. Further examples of data reduction occurred as the text was coded and themes were identified

and summarised (refer to Appendix M). As Miles and Huberman inform, data reduction is an ongoing process and it came to an end, in this study only when the final report was written. Data display is the next major activity in the data analysis process. Miles and Huberman define *display* as, "an organized compressed assembly of information that permits conclusion drawing and action" (p. 11). Consistent with the aims of qualitative research, at this stage, I assembled the information such that it was easily accessible and allowed me to embark in conclusion drawing as well as in taking the needful actions.

Conclusion drawing and verification form the third stage of the analysis activity. Miles and Huberman (1994) state that a qualitative researcher is constantly seeking to understand "what things mean" (p. 11). Also taking pointers from Marshall and Rossman (2006), I also searched for regularities, patterns, explanations in assigning categories of meanings and insights to these words and actions of the participants in the context. Conclusion drawing needs to be verified. In order to verify the conclusion drawing process I did what the researchers, Miles and Huberman had proposed, namely take "short excursion(s) into the field notes" or even as, "a fleeting second thought crossing the analyst's mind during writing." (p. 11). The next section discusses how data obtained through observations, interviews and documents in this study were analysed.

Observations. After an initial reading, all hand written scribbled field notes obtained from the description of events, ward settings, people and interactions were typed out into a Microsoft word 2007 program and organized into folders. This step while facilitating the reading process, helped in organising and managing the data so that it is easily accessible. The field notes were then read and reread several times before the sense making got a kick start. Subsequently, the detailed data were

organised into general codes or themes, which according to Miles and Huberman (1994) is the process of "assigning units of meaning" (p. 56). As recommended by Miles and Huberman, to carry out this process involves a technique of identifying a pattern in coding. A list of themes from the research questions and theoretical framework were also identified as the text was read. This process was also informed by the dynamics of the CoP and the notion that literacy practices at the workplace are socially situated reflecting a sociocultural orientation.

The next stage involved efforts to group the codes that appeared to be similar to form several meaningful themes or categories that could generate insights to answer each of the research questions. The repeated readings were helpful as they resulted in the emergence of categories and themes. The themes and categories gathered were subsequently examined and reinterpreted and compared to those obtained during the coding process. This was to identify regularities in the methods and strategies that the participants used when they participated in two crucial routine nursing events of their workplace: CS and Medication Serving. Both of which required the participants to read objective data from the multiple texts types and interpret them.

Interviews. With interviews, the transcripts of audiotaped recordings from the participants and other informed individuals were painstakingly entered into the Word program to facilitate "the analyzing, storing and sorting the data process" (Creswell, 2008, p. 247). The write up text was read and reread before it is segmented and labelled with codes to form general themes (refer to Appendix K for a sample). Creswell (2008) explains what should follow ideally is the inductive process, whereby overlapping codes will be collapsed in an effort to identify several major themes or categories related to the research questions. And this was carried out duly. As recommended by Merriam (2009) the labels for these themes were obtained from

sources such as the patterns of data identified during the preliminary study (e.g., the experiences of transitioning, struggles for identity, challenges in dealing with textual and literacy practices) and literature form the basis of the thematic elements of interview transcripts.

These thematic elements were then triangulated with evidence from other data sources mainly observation notes. Observation notes were a key source of data used in this study that provided an overall picture of the reality of the participants' workplace setting and their actions as they participated in their CoP with experts of their workplace communities.

Documents. As with observations and interviews, the purpose of analysing the documents, both personal and official was to select significant data that provides evidence to corroborate data obtained from other sources. From personal documents produced by the participants such as mind maps, selected abstracts, phrases, sentences or visuals pertaining to the novices' interpretative and sense making efforts were identified coded and interpreted. Data from official documents were segmented based on a coding system prior to grouping them into larger themes. These themes were helpful in understanding and identifying various aspects such as the official perspectives of the Nursing College and that of the Teaching Hospital with regard to the purpose behind the setting of the nursing programme. As Bogdan and Biklen (2007) state, knowing the "social context" in which the documents were produced gave "indicators" of "the direct expression of the value systems of the administrators" (p. 137) of both-the college and the hospital. Likewise individual files on the participants containing their academic records and biodata were analysed and juxtaposed with data obtained from interviews; this revealed perspectives regarding the participants.

Finally, these categories were compared to the themes obtained from the analysis of observations and interviews.

The following Table 3.1 shows a summary of the research objectives, research questions, participants, sources of data and data analysis procedures. The table presents the sources of data and the data analysis tools employed in the study for every question. It also supports the fact that this study considers triangulation of tools.

Table 3.1

Summary of Research Objectives, Data Resources and Data Analysis Procedures

Research Questions	Data Resources	Data Analysis
1. What are the experiences of Year-one student nurses when using the Patient Case Notes during their initial transitioning into the workplace?	1. Observations- The participants reading the PCN	Field notes from observations/ Look for concepts and ideas used by participants to describe their experiences
	2.Interviews with student Nurses	transcripts of interviews were reduced, coded and phrases assigned to text segments to describe meaning
	3. Document(s) analysis a)Nursing curriculum/ Learning objectives b) Excerpts from the PCN c) Dummy text types e.g medication kardex	identify and analyse official definitions and concepts identify ideas relevant to the research focus and examine outcomes which indicate patterns

Research Questions	Data Resources	Data Analysis
2. How do year- one student nurses read and interpret the patient case notes during their clinical practice in the workplace?	1.Observations of:- a)The domains of practice e.g. CS, PR, MS within which literacy and literacy practices related to PCN takes place. b)The actions and interactions of the participants with other informed individuals 2.Interviews: a) semi structured interviews with the participants and informed individuals b)group interviews with participants b)Personal communication with informed individuals- tutors, principal 3. Document(s) analysis a)Nursing curriculum/ Learning objectives b) Excerpts from the PCN c) Dummy text types used during classroom learning d)assessment of documents of participants	Examine fieldnotes and observations/codings. Look for concepts and ideas used by participants to describe their experiences look out for recurrences of events, indicating patterns identify typical sequences Transcribe into written text. Transcripts of interviews were reduced, coded and phrases are assigned to text segments to describe meaning a. Read and identify salient chunks of data relevant to research objectives. Code data according to categories (e.g. perspectives held by participants, context-related etc.) b.assign meanings to the text segments

Validity and Reliability

Merriam (2009) recommends that validity ought to be seen in relation to credibility (i.e., are the findings congruent with the data presented). Reliability on the other hand refers to the extent to which findings of a research can be replicated.

Researchers (Merriam, 2009) argue that the notion of reliability in qualitative studies can be problematic as human behaviour is not static; hence it will not yield the same results. However, Merriam proposes certain strategies can be undertaken to promote validity and reliability. To ensure internal validity, the current study employed strategies such as triangulation, thick description and audit trail. Triangulation is a crucial strategy used to achieve validity and reliability in this study involving multiple methods of data collection. Comparing and cross referencing data collected from varied sources (e.g., journals, observation notes collected at various times in various ward settings, interview transcripts obtained from the participants and other related individuals, and data mined from participants' written texts, and documents both internal and official) was triangulated. This strategy of using multiple sources of data, allowed me to check for consistency and completeness of emerging findings as proposed by Patton (1987). For example when a participant had stated during the preliminary study, "*We were never, maam, exposed to the actual PCN before our clinical* experience," (Int. Eva.line. 21), this data was checked against the learning objectives in their syllabus for year one semester two for verification.

Another attested strategy that has been posited to ensure external validity or generalisability is by providing a thick description (Merriam, 2009). The justification for this step was because the researcher required sufficient information to contextualise the study. This was done by providing a detailed rich presentation of the setting, participants, and findings of the study. Quotes from the various data collection sources mentioned earlier were abstracted as evidence. According to Merriam this strategy provides readers sufficient information with regard to description and to make decisions regarding to what extent the findings can be transferred to their situations. The process of providing a detailed description inevitably saw the researcher on-site

in the natural setting for a prolonged period to get close to the participants' understanding of the phenomenon. However, data collection was guided by the rule "data and emerging findings must feel saturated" (Merriam, p. 219), until the researcher senses that the information collected is redundant with no new information emerging. This process which Merriam, (2009) describes as adequate engagement, is a third strategy to ensure internal validity.

A final strategy to ensure credibility of the study involved using the audit trail. According to Merriam (2009) this strategy gives a detailed account of "how the data was collected, categories was derived, and how decisions were made throughout the inquiry" (p. 223). This ability to show convincingly how the researcher arrived at the results (Dey, 2003) is posited as a strategy to assure validity. The justification for this move is so that independent readers can authenticate the findings of the study by following the trail taken by researcher. Thus, a research journal to describe the process of conducting the research process as it unfolds, was also used. As proposed by Merriam (2009), the journal had detailed entries, on the researcher's reflections, decisions taken, related to problems, issues encountered during the different stages of data collection, and interactions while engaged in analysing data. These are among some of the structures that were adhered to in this study to ensure validity and reliability. Subsequently, the data analysis, the field notes, the observer comments, insights from official documents, personal views of the participants revealed through personal documents formed the basis to answer the research questions and for the writing up of the next chapter on findings and discussions.

Ethical Considerations

In qualitative research the researcher is obligated to provide participants with the following information: the purpose and the significance of the study (Marshall &

Rossman, 2006). These ethical concerns were addressed from the time of the preliminary study. As a first step, I sought approval from the Ethics committee of the Teaching hospital. Meanwhile, at the level of the college, I was given verbal approval by the principal for the necessary preparations. Subsequently, student nurses were informed in the presence of the coordinator of year-one nursing programme of the purpose and duration of the preliminary study and the kinds of data collecting methods to be employed in the research. On completion of the preliminary study, participants identified by me were asked on their willingness to partake in the actual study, to be observed, interviewed and permission to review their clinical experience journals. I assured them of confidentiality and that their privacy will be maintained, through pseudonyms. Subsequently, the selected participants of the study were given written consent forms (see Appendix L), on the official approval of this proposed study by the hospital ethics committee (see Appendix A & B).

Other documents such as nursing curriculum, participants' assessment of patients, were reviewed, once permission from the gatekeepers in ward settings and the nursing college principal was obtained. To maintain confidentiality, specifically the PCN files were not made available in the beginning to the researcher. However after prolonged engagement on the site, access to some texts in the PCN was briefly allowed by the experts –the ward sister, a matron and a senior staff nurse. Photographs of excerpts from some of the text types were taken by the researcher under supervision of experts. All personal history and demographical information were subsequently blanked out (see Appendix O). In the case of nursing-related documents produced by student nurses such as completed nursing assessment forms, confidentiality of these documents was maintained by deleting personal particulars of the participants. As with interviews, the purpose, the importance of their participation in this study and most

importantly how their information was used was made explicit to the participants who had consented to take part in this study.

Chapter Summary

Chapter three aimed at providing the design and methodology that gave the direction to carry out the phenomenon that was investigated in this qualitative interpretive case study. Various other aspects such as data collection methods, profiles of the participants, profile of the site, ethical issues involved in this study have been detailed. This is to enable the readers of this thesis to have a sense of the objectives and aims of this study that investigated the transitioning experience of novice year-one student nurses into the centripetal practices of their workplace community of practice.

Chapter 4 Findings and Discussions

Introduction

This chapter reports the findings on the development of Year-one student nurses as they gradually acquired competence in interpreting the Patient Case Notes (PCN), their focal workplace text. The PCN is a document consisting multiple texts. These texts have different conventions, structure and terminologies and play a significant role in delivering safe and continuous patient care in clinical settings. In writing the PCN, the writers, comprising members of the multidisciplinary health team assume that the readers, including student nurses, have knowledge of the content, procedures, medical conditions and specific language features of the discipline. Members of the multidisciplinary health team constantly refer to the written objective documented data in these texts to obtain a composite picture of their patients' health status or the 'patient script' and to plan appropriate nursing actions. Therefore, each one of these discipline-specific texts carries with it expectations regarding reader proficiency; both content and procedural knowledge as well as language proficiency. Learning in clinical settings requires the novice year-one students to participate in specific nursing tasks of their community of practice (see Appendix G for the objectives of the nursing syllabus). For the novice, a crucial dimension of this learning involves making constant reference to the multiple written texts of the PCN of their respective patients and interpreting it as experts do. Given this, in presenting the findings of this study I have used the following two research questions of the study as my organising principle:

- RQ1: What are the experiences of Year One student nurses when using the Patient Case Notes during their initial transitioning into the workplace?

– RQ2: How do Year One student nurses interpret Patient Case Notes during their Clinical practice at the workplace?

The timeline allocated to carry out the two research questions of the study covered the duration of the 12 weeks of clinical practice. RQ 1 focuses on the initial three weeks of the transitioning phase. RQ 2 investigates the main phenomenon of the study and it extends over the entire 12 weeks of clinical practice. It should be noted that the data for the study were not evenly obtained across the participants. However, this was not intentional. This was because the participants were not always available during the times of observations and interviews. Hence there is more data from some of the participants than the others. The following section discusses the findings of RQ1.

Research Question One

What are the experiences of Year One student nurses when using the Patient Case Notes during their initial transitioning into the workplace?

The focus of RQ1 was to investigate the ways in which Year-one student nurses experienced their initial use of the PCN during the first three weeks of their transitioning into their workplace. For the purpose of this study, the first three weeks of the 12 week clinical practice is delineated as the transitioning phase from the classroom to the workplace. Given this, the first week of the participants 'on entry" into their community of practice (CoP) was referred to as the first phase of the transitioning while the second phase involved weeks two to three of their placement in clinical practice and entry into their CoP. Thus, research question one is examined in two parts.

The primary data source to answer RQ1 comprises semi-structured interviews and Group interviews (refer to interview protocols in Appendix C and E) on the

participants' literacy practices in the first week of clinical practice. In the interviews, the participants were asked to describe their literacy experiences of using the PCN. I was also able to capture the participants' lived experience of their initial use of the PCN during the post observation interview held towards the end of their transitioning phase (refer to post observation interview protocol F). The next section explains the focus adopted for justifying the processes used to analyse the data.

Essentially, the theoretical framework formed the basis of my analysis of data and in drawing findings and finally in making deductions. Data analysis of write ups of raw field data in this naturalistic inquiry began simultaneously. Insights from the field provided opportunities to test the authenticity of those insights (Paton, 2002). In the analysis of data, in trying to identify the phenomenon I used the research objectives and my research questions to research key features and the link in the data. Initial coding was followed by generation of categories. Subsequently the categories and findings were organised into themes drawn from the dynamics of the theoretical framework, observations, and literature review. The categories were manually organised which allowed me a way of finding the relationship and building analytical notes. This enabled me to interpret and build a descriptive picture. In developing categories the process was facilitated and refined through key concepts from literature, and the pervasive theoretical framework.

A significant finding of the first research question captured the issue of the use of artefacts --the PCN and dummy artefacts-- and the practicum experiences of the novices involved in trying to gain competence in reading the PCN. An assumption here concerns the ways in which artefacts such as the PCN that mediate the practices of the workplace maybe introduced into their educational programs. Data also reveals

findings indicated, the process of learning, engagement and participation were moulded by a range of person-dependent factors and also individuals' intentionality.

Week one of the transition into the workplace. The analysis of the participants' experiences with the PCN in the first week had shown three distinct phases which was characterized as: anxiety, coping and acceptance. In the process of their transitioning from the classroom to the workplace, the participants moved from a feeling of anxiety in using the PCN to a gradual coping with it and to finally a state of acceptance of the PCN.

Anxiety. While it can be assumed most novice year-one students would experience anxiety when transitioning into the dynamic setting of their workplace, this section focuses on anxiety arising from using the PCN. The participants claimed they had not been exposed to authentic PCNs in the classroom, prior to entering their workplace. By authentic PCN what is referred to here is the actual physical texts of the Patient Case Notes folder comprising physician's orders, medication orders and diagnostic reports which are highly contextualized in the sense that different hospitals may adopt different conventions. By contrast, non-authentic PCN are decontextualized in the sense they may include generic forms or excerpts from nursing or medical texts, which are introduced in the classroom via PowerPoint slides during lectures in the classroom. Also, when actual texts and forms from the hospital are used, they are presented either as blank forms or dummy forms containing fictitious data. They represent generic PCNs, removed from the actual authentic context in which they are embedded (see Fig 4.5 for a sample).

Thus, on entry into the workplace, the participants were struck by the gulf between their in-class and at -work literacy practices. Because of this dissonance between the in-class and at- work literacy needs the participants experienced various

degrees of anxiety and frustration on transitioning. Evidence of the tensions and anxiety created by this divide between the in-class and at- work literacy practices came through strongly in the interviews of three of the participants. The participants, Hera, Eva and Arthi's first week's experience of using the PCN can be characterized as one of culture shock. After a week in clinical practice, Hera referring to her first week's experience declares, "I didn't know what the PCN means or its significance…I didn't know how to read it…" (Int.Hera.lines10-11)

Hera's emphatic repetition of words, "(I didn't know …)" reflected her frustration. Hera's anxiety suggests that she went into the clinical setting with expectations that her reading of the PCN will be relatively hassle free. Likewise, Eva expressed her frustration regarding her first week's experiences in using the PCN. Eva too, when during the interview when asked: "How did you find reading the PCN of your patients when you had to use it for the first time, in the wards?" took a few minutes before replying emotionally:

> We didn't learn anything about the PCN in the classroom…but we were told patients' information can be found in the PCN. I had no understanding of the PCN until I entered clinical settings
>
> (P.Obs.Int. Eva 1610-1614)

Although Eva had claimed that she, "…didn't learn anything about the PCN…" she did acknowledge that she knew that the PCN contained, "…patients' information…" Still this knowledge did not prepare her for the complexity of workplace literacy. Significantly also, Eva was aware that there was an "understanding" dimension in using the PCN. This awareness seemed to have added to her anxiety. It is evident that the culture shock and anxiety in Eva's case too arises because her encounter with the PCN in the classroom could have been brief and not meaningful enough.

Similarly, Arthi's interview transcripts too show her anxious moments during her first week of using the PCN as suggested in this excerpt. Arthi reveals:

> I have problems in reading the Patient Case Notes, when I read I cannot understand exactly what is required sometimes… although tutors have given briefing about the PCN; they didn't specify the content inside.
>
> (Int Arthi line 24-28)

This excerpt again reveals the tension and frustration experienced. Although like Eva, Arthi acknowledges that the tutors have briefed them on the PCN, she is quick to point out that, "…they didn't specify the content inside". 'Content inside,' in this case, implies that Arthi was aware that to use the PCN, she will need to have a holistic knowledge of the content of the PCN, specifically knowledge regarding the various text types and its purposes. The quote suggests the beginnings of Arthi's understanding of the text PCN. Her statement that, "…when I read I cannot understand exactly what is required …", illustrated Arthi's anxiety during those moments when she realized that the reading of a workplace text "required" some form of action to be followed. Thus, sometimes her reading of the PCN did not culminate in knowing the subsequent action to be followed. The findings showed all three participants Hera, Eva, and Arthi had expected their initial literacy experience at the workplace to be a smooth transition from classroom theories to practice. Interviews with the participants revealed that their encounter with the PCN in the classroom was decontextualized, whereas the actual literacy practices in the workplace were seen as dynamic and context driven.

Interviews with three tutors were used to guide the researcher. The findings affirmed that there was no explicit teaching on the PCN, in the classrooms. These tutors, Ms. Tara, Ms. Taz and Ms. Zai asserted that references to the PCN were made

when they taught the topics on the Fundamentals of Nursing. The tutors gave examples of instances when they made the links.

Ms Taz explained that during the lesson on vital signs, she had shown the students the scanned versions of vital signs documents such as the Input and Output forms in the PCN on which the information should be recorded and how it should be charted. Ms Zai revealed that during the lesson on administering Parenteral medication, which refers to medication that are not given through the gastrointestinal tract (e.g., an IV intravenous infusion or insulin injection), she had filled the text used by the institution with "fictitious data" and used it as a 'dummy' in the classroom learning (see Appendix N for dummy used).

The findings showed that in the classroom, references to the PCN are made whenever the occasion arose or sometimes in an incidental manner. Additionally, specific samples of texts which can be found in an authentic PCN had been introduced through slides and scanned documents, during the classroom learning concurring with the participants' claims that their exposure to the PCN in the classroom was brief. It is therefore apparent that the participants had encountered the PCN but at an abstract level and in an artificial setting (Wenger, 1998) of the classroom. This finding affirms the argument of the proponents of English for Specific Purposes (e.g., Belcher, 2006; Bhatia, 2003) that inauthentic texts when abstracted from its context into the classroom does not facilitate the development of appropriate behaviour (Hyland, 2002).

As evidenced from the abovementioned findings, most of the participants had experienced some form of anxiety and confusion when they had to use their professional text--the PCN at the workplace, especially at the point of entry into their CoP. This finding was also triangulated by data from my observation field notes on Arthi and her partner Kay's charting of vital signs on the third day of the first week.

The following analysis of an excerpt from my field notes highlights Arthi and Kay's anxiety when they had to chart the vital signs of an elderly patient, scheduled to undergo an invasive procedure into the Observation Chart.

My field notes excerpt reads:

> having completed the task of measuring the various primary vital signs of their assigned patients, both leave the room, to the nurses' station with to chart the values into the PCNs. A doctor has taken hold of one of the patient's PCN and has moved to the bedside of the patient, to explain to the anxious family members on the condition of the patient. Kay and Arthi watched the "event" from outside through the doorway for some time. Arthi, appears concerned… as she realises preparations to move patient to the operating theatre have begun... Instinctively, both of them dart towards the staff nurse and stops her, at the lobby area. They tell her about the charting of the vital signs of the patient. The staff nurse appears annoyed. She hands them the PCN. The novices quickly seize it and collaboratively, fill the patient's data into the columns of the vital sign form. Blood pressure is quickly charted in the form of graphs, while pain score is recorded based on the code given …while keeping the patient and entourage waiting
>
> (Obs.Arthi/ Kay lines.411-421)

The anxiety experienced by the novice participants at various moments appears to be related to the larger anxiety that comes from entering a new workplace. Specific actions displayed by the participants, in relation to their professional practice, shows that the anxiety that they had experienced arose from using the highly contextualized, authentic PCN. Arthi and Kay had successfully collected data from their patient, indicating they had the relevant procedural knowledge on how to measure vital signs. A first indicator of some anxious moments that the novices experienced was sensed, when they "could not get hold" of the PCN to immediately chart this data. This is despite their classroom learning that vital signs are crucial indicators of the health status which has to be documented into the PCN and assessed immediately, in establishing a diagnosis and treatment for the patient X.

The findings point to a divide between the reading of the highly contextualised nature of this literacy practice at their workplace setting and the decontextualised learning of the PCN at the classroom level. Thus, most participants, like Kay and Arthi, experienced anxious moments at their workplace, as a result of the difference between the in-class and at work literacy practices encountered. This gulf also made it difficult for the transfer of meaningful learning. However some of their subsequent subtle actions such as, Arthi urging Kay, "to put in the data" and "taking the hesitant steps", toward the space occupied by the experts with the intent of obtaining the PCN from them, indicated their state of anxiety. The final instinctive and daring move to inform the staff nurse of their unfinished job when they became aware that the patient was soon en route to the operating theatre without the documentation of essential updated data, captures further the culmination of their anxious moments that preceded. Nonetheless, it is indicative that the participants had begun to gain some experience of the situated nature of their workplace literacy practices and were beginning to cope.

Coping. Despite the initial frustrations, most of the participants recognised that they had to alleviate their anxiety in order to move on. An awareness building of the problem is implied in the analysis of excerpts from interviews with Hera, Arthi, Eva and Iza. All four participants expressed positive attitude and their desire to become competent users of the PCN. This awareness building however only takes place when they became immersed in the context and had begun to recognise the place of the PCN, in the workplace practices of their discourse community. The following excerpt from Hera's interview captures this awareness. Hera states:

> I didn't learn to use the Case Notes in the classroom but I am sure I will learn about the Case Notes once I am in the wards, when I need to use the Case Notes all the time. Especially when I have to do my Nursing process, I will need to obtain a lot of information from the Case Notes. I am sure I will learn about the Case Notes…
>
> (Int Hera. Lines 54-57)

The excerpt shows that Hera seems to have made a transition from anxiety…"I didn't know what the PCN means or its significance…" and "I didn't know how to read it…" to coping, "I am sure I will learn about the Case Notes...." The shift in modality such as "… I am sure…I will…" shows the shift in her stance: her preparedness to use the PCN. Notably, this analysis shows that Hera is already strategising and beginning to move on, as she recognises that she will, "…need to use the Case Notes all the time… once …in the wards."

Additionally, the data suggests Hera has also begun to recognise the centrality of the PCN and the literacy practices of her CoP within the duration of the first week of transition. The transcripts, too suggests this was a moment of high expectations. With this concern, Hera seemed to be confident that she would be able to meet her expectation as she begins to habitually use the texts in the actual circumstances of the workplace. The findings show Hera accepting the fact she has to be a competent user of the Case Notes in the ward settings to carry out the Nursing process. As Sannino (2008b) states, "the individual disposition to act is being prepared" (p. 241), as Hera accepts the fact she has to be a good user of the Case Notes in the ward setting to carry out Nursing process.

A similar positive stance towards the PCN is also revealed in Izza's initial perspectives of her experience of using the PCN. Izza states:

> We do learn about the Case Notes in the classroom but not much. It is mostly on the Nursing care rather than the Case Notes but we will learn about Case Notes when we are in the ward as we need lot information when we do Nursing process.
>
> (Int.Izza.lines 52-54)

Izza reveals as a matter of fact that the focus of their learning in the classroom was on nursing practices, "…rather than the Case Notes…." Izza implies that she was

still not a competent user of the PCN. However, like Hera, Izza has realised during the duration of the first few days of entry into her CoP, the PCN is a pivotal text in the Nursing process. This recognition of the PCN indicates her stance towards the PCN. Izza appears to be learning to cope with the initial culture shock and like Hera appears to be moving on. This is indicated when she says, "…we will learn about Case Notes when we are in the ward …." It also shows, Izza has recognised the importance of learning on the job and hopes to be a competent user of her PCN eventually through her peripheral participation in the practices of her CoP.

On a positive note, the analysis revealed that the initial experience of transitioning although it saw a certain amount of resistance and anxiety seemed to have enlightened the participants alike on acceptance of the role of the PCN as a pivotal workplace artefact. The following quote taken from Arthi's excerpt says it, "…I now know there is a relationship: a close relationship between the PCN and Nursing Care…I didn't know I am going to be with it forever, throughout my career,"

(P.obs.Int Arthi line.18-19)

The quote from Arthi "…I now know there is a relationship: a close relationship between the PCN and Nursing Care…" suggests that she is moving on too like Hera, Eva and Izza. This quote which signals that she has begun to relate the PCN to Nursing Care also shows Arthi's understanding of PCN is deepening. Unlike Eva and the others, Arthi did not link reading the PCN to nursing process or as to what action she has to take subsequently but to Nursing Care. This finding suggests that Arthi was beginning to relate the PCN to the practice of caring which forms the bigger philosophical concept of nursing (Watson, 2008). Like Hera and Izza, Arthi too seemed to have integrated a text and a set of literacy practices around the PCN to the larger phenomenon of all the complexity of their professional practice namely to

Nursing Care and Nursing processes, both of which are the defining features of their profession. The next section discusses the transitioning from coping to acceptance as the participants began to develop an understanding on the centrality of the PCN as their workplace text.

Acceptance. Arthi's transcript reveals that there is a clear shift from her initial stance of anxiety to accommodating and accepting the PCN. Her use of oppositional structures specifically "I didn't know there is a …close relationship between PCN and Nursing Care …" and "I now know…" indicated there was now a realisation and recognition of the centrality of the PCN in nursing care. The transition from coping stage indicates she was moving on. The double emphasis "…I am going to be with it *forever, throughout* my career …" also indicates that her earlier resistance and anxiety towards the PCN had been replaced by her acceptance of the centrality of PCN as an artefact of their workplace. This shift from inadequacy, "…I didn't know... I did not know how to read…" to acceptance, "I now know…." that occurred within the first few days of being in the workplace was also partly because of the intensity of the first week's experience. Part of Arthi's acceptance comes from understanding the significance of knowing the place and the reality of PCN. As Nakamura and Orth (2005) state, Arthi was willing to deal with this reality. This analysis comes through quite strongly in this phrase of double emphasis "…be with it forever, throughout my career".

The problem that the participants encountered in the beginning of the initial week can be linked to their initial PCN experience which appeared to be decontextualised. Hence the participants could not see the significance of PCN. It was only when, in Eva's words, the participants "…*saw and held* the PCN…" and were

plunged into the fast paced context of their workplace which required them to literally think on their feet, did they realise the significance of PCN.

Experiences of weeks two to three of transition into the workplace. The focus of the second phase of research question one was the experiences of the participants, Arthi, Rul, Eva, Yaaz and Ame in using the PCN after two to three weeks into clinical practice. This was when they became engaged in carrying out more complex nursing tasks such as taking and charting vital signs to determine diagnosis or treatment and to serve different types of medication. To carry out crucial nursing tasks such as these necessitates the obtaining of needful data from the PCN. Thus, an examination of this second phase of the participants' personal experiences of their transition had the potential of providing understanding of the learning that the participants might require in enacting the target literacy practices of their discourse community.

The experience of week one had revealed the participants' concerns with their emotional adjustments towards the PCN and the divide between the decontextualised PCN of the classroom and the highly contextualised authentic PCN of the workplace. Data on the participants' experience of weeks two and three of their transitioning revealed firstly, their early awareness of the complexity of using the authentic PCN and their evolving understanding of how the multiple texts of the PCN had to be fitted together to form a composite view of the patient. Findings that emerged from my field notes, semi structured interviews with the participants and document analysis revealed their awareness of different textual traits related to the PCN namely: identifying the different text types, making intertextual connections; medical terminologies and the nature of the multimodal texts in the context of their multilingual workplace. These different perspectives of their experiences in using their workplace text in weeks two

and three build off from their week one experiences of their transitioning. This section captures the various facets of the participants' experiences related to their transitioning into the workplace.

Identifying texts types. An immediate challenge most of the year-one student nurses experienced during their transitioning phase into the workplace in weeks two and three was related to not knowing the text types of the PCN. As clinical practice unfolded further, they began to see the complexity of their workplace texts. Firstly, they did not understand that the texts referred to as the PCN was actually a composite of multiple interrelated texts from the various disciplines of the multidisciplinary health team which they could not differentiate. The text types, such as the dietician's referral forms, laboratory test results from pathologists and microbiologists, doctors' case notes, orders for administration of drugs, nursing observation charts, like typical workplace documents, could comprise a mix of semiotic modes and written texts

Based on the data on participant experiences, even identifying the various text types of the PCN during weeks two to three of their transition into the workplace remained a challenge. This evidence emerged from interview data with Arthi and Rul who talked about their evolving understanding of how the multiple texts types of the PCN fitted together to construct a view of their patient. As Arthi puts it:

> At first I didn't understand the arrangement of the folder (PCN) or what is written in those forms. They come in different colors. I did not know what they were meant for. The forms were not direct, for example x ray forms were stated as Bacteriology form or Operation form but not as x-ray forms. But even then it did not tell me what it is about?
>
> (Int. Arthi. Lines.6-8)

The first two sentences of Arthi's interview transcripts reveals that she did not understand, "…the arrangement of the folder" nor "…what is written in those forms," capturing her predicament at this phase of her peripheral participation. While it indicates Arthi's evolving understanding that the PCN is a composite of multiple text

types, she reveals that even knowing the text types made little difference to her, as she still, "…did not know what the text types were meant for". The fact that the texts were of "different colours" did not help either, meaning that at this point of her transitioning she could not make the connection between the varied coloured texts and to what each of them represented (e.g., a yellow form means it a dietician referral form, radiology forms are white).

The analysis illustrates the difficulty Arthi had encountered in using the PCN which was related to recognizing the relevant texts types. Lines three and four, however, capture an obvious factual error that, "…x ray forms were not stated directly as x ray forms but as Bacteriology or Operation form." This error was ascertained through personal communications with two experts- Matron Zee, a senior matron and Tutor Fara.

Personal communication (PC) with the experts provided supportive evidence that Arthi had, "either misunderstood or was confused," as "a bacteriology form is not part of an x-ray form…." (T. Fara, PC, October, 2013).

Arthi's tutor further explained that this because:

> … numerous types of Investigative forms are used by doctors such as Bacteriology form which is green, Virology Investigation Form is pink, Radiology Forms, Blood chemistry Investigation forms which are blue in colour are for purposes of investigating patients' ailments.
>
> (T. Fara, PC, October 2013)

The data drawn from an interview with Matron Zee too helped to understand the initial difficulty experienced by Arthi in recognizing and linking the various text types in the PCN to its purpose. Matron Zee explained:

> …a Request form for a radiological investigation depends on the orders of the treating doctors…if the doctors wanted do an MRI they would use another specific Request form, likewise if the doctor wanted to do a CT Angiogram…, the doctor would use a different Request form for the purpose...
>
> (Matron Zee, PC, October 2013)

To the researcher's question, "How important is it for year- one student nurse to recognize the various (forms) text types?" Tutor Fara explained:

> …a doctor may request the student nurse to accompany a staff nurse who is taking a patient who is quite ill, from the ward for a scheduled procedure at the Radiology department but the form (text) on which this order is made could appear on a CT Angiogram request form . Thus it is important for the accompanying student nurse to know where to obtain the relevant data before they leave for the x ray department, so as not to delay the procedure...
>
> (T. Fara, PC, October, 2013)

The analysis data from the tutor suggests that an act of not knowing the various text types comprising the PCN, which serves the same purpose as mentioned by Matron Zee could set off a chain reaction in sourcing of relevant data about the patient and doing the needful for her patient promptly. Based on the analysis it can be deduced that novice participants such as Arthi had encountered two types of problems during their second phase of their transitioning into their workplace--the process of transitioning itself and the occurrences of wrong understandings of content and facts. The data implies that it cannot be assumed the transitioning phase always involves expansion of knowledge base as in the case of Arthi.

Similar evidence of the participants' early understanding that the different multiple text types of the PCN fitted together emerged from the analysis of the transcript from Rul's interview. Findings from Rul's interview provide evidence that he, like Arthi, had difficulty in dealing with the multiple text types of the PCN. Using the metaphor of a '*puzzle*', Rul explained that traversing the multiple text types to extract data of the PCN was a haphazard experience for him during the first two to three weeks of his clinical practice. Rul revealed that eager as he was to know about his patients, when he held the thick folder of his patient's case notes, a stream of thoughts would run through his mind. The following data illustrates Rul's mental process:

> Where should I look"? So I will start to flip the pages of notes... Then when I find the page, I knew very little only of what I was reading. I couldn't understand most of the words. Sometimes I could not find the form. From where could I get the information? I ask myself, is it in the middle of the folder or is it at the back or in the beginning pages. The folder is usually thick with doctors' clerking notes, scan results, radiographer's reports. …the documents were like a 'puzzle'. I asked my friend, he couldn't help because he too is in the same boat as me
>
> (P.obs.Int Rul line. 3-11)

Rul's reflection of his internal mental grappling of locating text types within the PCN throws light into the complexity of trying to understand the multiple text types in the PCN. Knowing how to identify the text types may have enabled him to locate how the texts are related to one another in the effort to understand the nursing task he needed to perform. Just like Arthi, Rul too appeared at this point of transitioning, unfamiliar with the different colour coded text types in the PCN. The transcript implied that both of them, like many of the year- one participants, did not have sufficient knowledge of the colour codes.

The next section discusses further the learning experiences of some of the participants as they explored intertextual connections across the text types during this initial phase of weeks two and three of being in the workplace.

Constructing intertextual connections. Intertextual connections are the across-text linkages readers and writers engage in as they sift through ideas of others to construct their text (Tierney, 2008). In reading the PCN, participants like Eva, Rul and Yaaz progressed from recognising text types to making sense of a "sets of texts" (Afflerbach & Choo, 2009, p. 79) to understand their patient's health status. Data from three participants, Eva, Rul and Yaaz suggested that in reading the various text types in the PCN, they made intertextual connections. The question that arises is when did this awareness that "no texts exists on its own", as pointed out by Haberer (2007) happen?

Eva's experience on the need to draw meaning from across the multiple texts was highlighted by her in response to my question: "When you had to get a picture of your patients, how did you go about getting this information?"

Eva's response was:

> Mix ups always happen in a busy ward. However, if I know my patient's history and present or previous illness, a critical event can be avoided. But to do this, I must be able to get all these information together in order to understand my patient's care plans done by doctors, staff nurses, and others in the hospital. I need to read the different notes and reports in the PCN and put them together to know about my patient's condition, the progression and the disease… This was difficult in the beginning and even now in my second semester.
>
> (P.obs.Int.Eva.line145- 153)

The analysis exemplifies that Eva would only be able to "get a picture of [her] patients" as Still and Worton (1991) assert through the "process of reading". The data also suggests that Eva was aware that no one text is a "self -sufficient whole" (p. 1). Hence the "… need to read the different notes and reports in the PCN…" arises. Knowing the care plans of the multidisciplinary health team, on "…the patient's condition, the progression and the disease…," becomes pertinent in the delivery of safe care.

In talking about trying to "…put everything together…" Eva was in fact addressing the phenomenon of intertextual links within a text type and between text types, which often follows the identification of the various text types in the PCN. Eva's actions seems to affirm Riffaterre's (1984) notion of intertextuality that refers to an "operation of the reader's mind" which is both "obligatory and necessary in any textual decoding" (p. 142). When Eva makes references to the "…care plans done…by doctors, staff nurses, and others in the hospital…" it further gives an indication as to why there is this need for her to make these "traces and tracings" (Frow, 1991, p. 45) to other text types and the multiple authors.

Eva is aware that this interface of multiple text types and the multiple authors made available different sources of information needed to understand the composite picture on the health status of her patient. When Eva revealed that she must "…get all these information together…," it provides evidence that Eva had relied on intertextual connections across multiple texts to facilitate development of her "construction" of text (Tierney, 2008. p. 263). Evidence of Eva's formation of intertextual linkages is revealed in the following excerpt, when she explained how she prepared for an assignment in lieu for a mock viva presentation of one of her patients.

> ….my partner Fara and I had to gather information about an AIDS patient chosen for us for the mock viva. I first read the Medical History in the Case Notes from there, I looked at the Social History. Here I looked at the section on notes on the sexual activities of the patient. I then looked at the marital status which gave me the information whether he has multiple partners or unprotected sex. I also look for how long the person had taken part in this activity….
>
> (Int. Eva lines 46-52)

The data illustrates Eva's attempts at trying to arrive at an integrated understanding and meaning making of the text that she was constructing through different text types authored by multiple writers of the PCN. From the text type on Medical History, she was able to integrate the various categories of information regarding her patient within this text type. For example, she was able to trace demographic details such as "the patient's marital status" from the patient's 'Medical History and link it across other details of the patient's Social History such as their sexual activities. To a further question on whether she read other kinds of texts besides the texts on Medical history, her response was:

> Yes, I am in a surgical ward. So, I also read the Procedures and Consent Form signed by the patient which also has details of blood results, the scan reports and laboratory test results, medication Kardex …until the present. I write down the notes then I form a summary of the notes…I then compared all the information to know the condition of the disease which the doctors would have written. This helped me to understand the progression of his disease…"
>
> (Eva Int.lines 27-34)

The above excerpts revealed a few significant moves in Eva's learning to use the PCN, within a couple of weeks of transitioning into the workplace. The analysis illustrated that she had a system for organizing her experience. Being in the context of a surgical ward she had first chosen to read the text on "…Procedures and Consent Form…" which would indicate details of various investigations reports and pathological results, the diagnosis and the procedure that will be carried out on the patient. The data implied that Eva tried to understand what she was reading by constructing linkages within different parts of text type (e.g., such as the Medical History) and across other texts types. Eva's personal experience of employing intertextual connections also suggested that she had visualised an "organizational pattern," required to facilitate the "across-textual linkages," as Spivey (1997 p. 191) contends. This was evident when she revealed the way she went about constructing the text "…on the progression of his [the patient's] disease…."

Driven by curiosity, I posed the following question, "How do you come to conclusions regarding the progression of your patient's condition?"

Eva replied:

> I use patterns in the vital signs, condition of wound healing… or signs of infections, monitor bleeding…and data from table on patient's pain level…it will help me to differentiate patient's progression levels.
>
> (P.obs.Int. Eva.lines 66- 73)

The data indicates that Eva has moved to higher levels of intertextual connections in her attempts at constructing a summary on her patient's health status. At one level there is intertextuality within a particular text type such as the one on Medical History when she integrates bits of information on the social history to the patient's demographic information. Similarly, there is also evidence of her construction of intertextual linkages between other text types such the Medical

History, Medication Kardex and the Procedures and Consent form or lab reports. Intertextual linkages seems to be one way of reading that facilitated Eva's understanding of the PCN at this initial phase of her transitioning. However Eva's initial experience at making these intertextual connections at this stage were hampered presumably because of her lack of experience or as Eva says due to the theoretical and practice divide. This is revealed in Eva's words:

> The nursing knowledge that I learnt in the tutorial class is lacking. So I have problem in connecting content knowledge to the documents I was reading in the PCN especially texts such as history of patient's present illness, previous medical history, investigation procedures and results.
>
> (Int.Eva lines 91-94)

The data does not reveal specifically what aspect of nursing knowledge was lacking in the tutorial class she attended. However, the data implied that despite being aware that she had to compare, contrast and relate the text she was currently reading, to more texts, in reality Eva had encountered difficulties in making those intertextual linkages across the multiple texts of the PCN.

Rul's learning experience in this initial phase of transitioning implied that like Eva and Yaaz, he, too, had begun to rely on intertextual linkages between the text types in trying to construct a composite picture of his patient. To my question, "One of your first nursing tasks in the first week was Medication Serving. What texts did you read to carry out Medication Serving?" Rul states:

> I come early, to get hold of the case notes folder of my patients, before I start bed making. I first read the non-parentheral medication kardex and jot down the information in my notebook. Then, I have to connect the different bits of information I have on the patient's medication, patient's biodata, and vital signs to the actual condition of patients
>
> (Int Rul lines106-117)

The excerpt reveals Rul's experience of how he went about trying to understand data in the Medication Kardex during weeks two to three of his transitioning phase. Rul presents a different kind of information from Eva. There

seems to be a realisation in Rul that reading this text type is a demanding task. He saw it as requiring a certain amount of investment such as coming "early", to read the PCN of his patients. In Rul's words,

> "get [ting] hold of the case notes folder…" suggests a certain degree of difficulty of access to the PCN faced by novices like Rul, His approach involved organising the data he had obtained through intertextual connections across a few text types such as the Non Parentheral Medication Kardex, patient's demographic details and vital signs from Observation text types. He then connects the "different bits of information" that he had obtained from the various text types and links them to the "…information on the actual condition of the patient and the progression of the disease…"
>
> (Rul Int lines106-117)

Rul's top-down processing, involves the "integration of background knowledge" (Paris & Hamilton, 2009, p. 33) of his patient with the new knowledge he had retrieved through his intertextual linkages across various text types. Rul's use of intertextual linkages across multiple texts while attempting to accomplish his purpose for reading was once again evidenced in another excerpt from an interview, toward the end of the third week of clinical practice. His response to the researcher's question: "When do you read the PCN?" (Int Rul lines51-52).

The following quote from Rul illustrates his use of intertextual connections to help him in understanding the text(s) that he was reading.

> I read when I want to do nursing assessment. I need a lot of information. For this I need a variety of documents like history of patient's illness. I usually read the doctor's notes for admission. I also want to know the plan of the doctors... so particularly I looked for specimen collection instructions…what investigations has been done for my patient. If I can trace the results of the investigations, it will be a 'bonus' for me and my team during conferencing. Besides this I also read the Medication Kardex because I need to serve medicine...
>
> (P.obsInt Rul lines.53-60)

Rul's description of his experience of learning indicated a number of insights. Firstly it revealed that like Eva, Rul too has learned to distinguish and use the multiple texts to accomplish varied purposes. He knew he must link various texts to understand,

for example, the 'texts' he is constructing on 'plan of the doctors for the patient'. Two, it also appears that within weeks two to three of his transitioning into the workplace, Rul was also extrinsically motivated by the '*bonus*' that awaits him and his team 'during conferencing."

Thirdly, the finding gives an insight into Rul's deep approach to learning to understand what he is reading. The analysis of his experience indicated that Rul was also becoming increasingly aware that he must move beyond the surface level of reading to just meet the task requirements, as posited by Biggs and Tang (2011). This evidence was implied when he revealed, besides trying to make surface-level links between the texts, he begun to "…trace results of the investigations". This revelation indicated that he had begun to adopt a deep level approach when using the multiple texts. Marton and Booth (1997) cited in Mathew et al. (2012) claim that what is learned can be classified as "fragmented or cohesive" (p. 532). Rul's approach to reading the PCN and even that of Eva's, at this point, could be classified as cohesive, as their learning experience demonstrates an awareness of the component parts of the 'text'.

In both cases, I noticed the participants' "evolving literacies" as posited by John (1997, p. 36) as they attempted to construct the relationships between the component texts in understanding their reading of the PCN. The findings from the section reveals the quality of Eva and Rul's initial experiences of understanding the multiple texts of the PCN on transitioning into the workplace, from their own perspectives. Rul and Eva were among the participants, who had quickly realised that they need to make intertextual connections across the multiple texts in order to construct an understanding, when using the PCN. This learning was a crucial step in

their peripheral participation, as it would enable them to carry out their assigned nursing tasks successfully.

Smagorinsky (2001) asserts that, "meaning comes through a reader's generation of new text in response to the text being read" (p. 133). Rul and Eva's reading experience at this later stage of transitioning seemed somewhat in tandem with Smagorinsky's (2001) line of discussion. This was implied when both Rul and Eva went on to link the data from the various texts in order to understand "the initial text" that they had read.

Yaaz's Experience. too revealed evidence of a similar way of top down processing information. This was illustrated in an interview excerpt from her. She revealed that her initial posting to the gynaecology ward, was "very stressful". One of Yaaz's main responsibilities was to closely observe the administration and management of chemotherapy drugs to cancer patients by staff nurses and observe the patient carefully for "abnormalities". As Yaaz was "…not allowed to do anything other than to observe what the nurses did…" she found it difficult "to absorb" the details of the procedure and names of solutions. Thus, whenever questions about the solutions that were infused arise, she could not remember details or the procedures. Yaaz's recall of how she remembered this newly learnt procedure as she observed the staff nurses administer chemotherapy treatment on patients reveals her use of intertextual connections across relevant text types:

> I take down notes on what I saw first into a note pad. … I also refer to the Case notes of the patient. I read on treatment, I also go through Nursing Care plans of the staff nurses for patient. Then I go through the medical diagnosis section. Then I will go through the PCN and try to trace back why the patient is here. Next I will look at the Chemo file. The staff nurses have shown us this file. They have taught us to look at the page called Standard protocol. Here I can get information on infusion. I learnt that chemo has to be infused with a solution alternatively. I read especially to find about this infusion. I learnt which solution had to be given first…
>
> (Int.Yaaz lines. 36-45)

The data illustrates that Yaaz uses multiple resources to reinforce a procedure that she could only "…observe but not allowed to carry out…" (line 31). Among the text types that she uses besides the various texts found in the PCN, are the "Chemo file" and the text on "Standard protocol," both of which are specific text types in the gynaecology ward and "internet resources and books." The variety of texts that Yaaz reads to reinforce her new learning highlights the intertextual linkages that Yaaz had formed to carry out her assigned task. Unlike Eva, Yaaz, seems to have relied on the top down processing when she integrated background knowledge of the procedure on infusing chemotherapy on patients to the new knowledge arising from her intertextual linkages from multiple text types.

The analysis shows the three participants had employed intertextual connections in order to achieve their objectives such as to "…remember a newly learnt procedure" (Grp. Int. Yaaz, lines 37), "to understand patient's care plans done by doctors, staff nurses, and others…"(Grp. Int. Rul lines 57), or "to collect data for a mock viva assessment" (Grp.Int. Eva, line 2). This finding also points to the conclusion that both Eva and Rul had formed an "organizational pattern," required to facilitate the "across-textual linkages" (Spivey, 1997, p. 191). In the case of Rul it was apparent that he had used a rough mind map on the space of his note book, to arrange the information and see the interconnectedness of the various components to achieve this purpose. The finding that emerged from this segment highlights that the novices had become aware that to read the PCN, as Haberer (2007) mentions in his conception of intertextuality, that texts "don't exist on its own" and that they are always "connected to other texts" (p. 57).

The next section discusses a third emerging theme that was noted from the data is related to the language of their workplace during this transitioning phase of clinical practice.

The multilingual workplace. The workplace environment where the participants found themselves was multilingual, where different languages other than English are used. For instance during the discussions between medical professionals English was used, while the interaction between the staff nurses and the student nurses was often in Malay. In exploring issues related to the language of their workplace, data from my field notes and interviews with three participants Yaaz, Ame, and Arthi for whom English featured as a second or a third language provided a link in understanding how they used the PCN at this transitioning phase. Additionally, personal communication with two other informed individuals - the dean of the medical faculty and a nursing tutor - were obtained to verify the emergent findings. Data from these sources revealed that though English is privileged as the language of the clinical setting, their workplace is indeed multilingual as well. The following excerpt from my field notes on Yaaz provides evidence of the multilingual nature of the clinical setting:

> the talk between the consultant and doctors is in English and is centred on the PCN. The consultant engages in a lively talk in a Chinese dialect with an elderly Chinese patient and elicits responses from her. The clinical teaching, the question and answer session between him and his Medical officers, Interns and medical students comprising locals and internationals, gathered around the patient, is in English. The consultant also acts as an interpreter as he translates the responses of the patient in English for the benefit of the others in the ward round. Staff nurses and the ward sister are also consulted
>
> for information on vital signs and other details. This talk between them is in Malay and in English. Student nurses including Yaaz are passive listeners….
> (YaazOb.lines1914-1920)

The researcher's field notes established two points. Firstly, it established the privileging of English as an important language at this workplace specifically because it was used for official purposes such as in all their documents including the PCN, for pedagogical, clinical and social practices. This was specifically seen during the grand ward round by the multidisciplinary health team, "… comprising locals and internationals."

English appeared to be the dominant language for varied purposes when the talk was "…*centred on the PCN*," such as for clinical teaching and learning, during "…*question and answer sessions*…." between… "*Consultants, doctors, medical officers, interns, medical students*…." English was also used in oral interactions with other members of the multidisciplinary health team such as the staff nurses and ward sister as and for the purposes of making enquiry regarding patient care.

The multilingual nature of the workplace setting of the clinical practice was noted during the "talk" between the consultant and the patient. The language would vary depending on how proficient their patients were in English. Based on the proficiency, doctors and nurses would resort to using local languages such as Malay, a Chinese dialect or an Indian language. In the excerpt the consultant speaks to his "*elderly patient*" in a Chinese dialect. The code is switched to English when he translates verbal data on the patient for pedagogical purposes and for the benefit of his audience comprising therapists, student nurses, tutors, and so forth. Similarly, the consultation and discussion between doctors and the nurses and the ward sister is mainly in "Malay" with code switching between Malay and English. However the language of speech and listening between nurses and their patient, the staff nurses and the novice nurses was invariably in the Malay language.

To further explore the experiences of the participants with regards to the language of their workplace during clinical practice, interview data from Yaaz, Ame and Arthi and two other informed individuals were analysed to gain insights into the issue.

The excerpts from interviews and field notes revealed accounts of the year-one students' experiences of their participation and learning as well as their difficulties in understanding English -- the main language of their workplace. A theme that emerged from the excerpts would reveal the relationship between language and the complexity of acquiring competence in reading and using the PCN. Interviews with informed individuals concurred with several aspects of the researcher's analysis of field notes and interview data from the student nurses.

Ms Lee, a senior nursing tutor from the faculty of nursing when asked: "*How can the student nurses acquire competence in reading of Case Notes*?" responded:

> First I should say fluency in English. Because all documents are in English, in our wards. It is not an option. It is for a good cause. Even nursing notes are in English. If it is in any other language it will bounce back...
>
> (Int.Lee line.184-189)

> To my follow up sub question: *Is it an institutional policy*? Ms Lee explained, "*No it is not an official policy but we have strong backing of the nursing administrative body. We are keeping in pace with current trends in the profession*".
>
> (Int.Lee.line191-193)

Analysis of Ms Lee's transcript shows the place of English within the nursing community of this institution and the strong support of its language policy by the nursing administrative body. The data also confirms, "…*all documents in the wards are in English*".

To verify the emergent findings from the field notes on the position of English as the language of the workplace, in this teaching hospital, I was also able to engage

the Dean of the Faculty of Medicine in a short informal interview at her office. Her response to the researcher's questions on: a) *what is the language of the workplace of the hospital* and b) *Is English was the dominant language of clinical setting*? Her response was:

> The workplace setting of the hospital is multilingual and English is not the dominant language of this workplace although there is consensus among some the senior consultants and academics in the hospital to make it the official language of the workplace. But you perhaps you could say English is one of the main languages of this workplace…. However I expect medical students to be proficient in English as they come to the clinical setting and that goes for nursing students too; as they are implementers of the doctors' orders in the PCN…
>
> (The Dean, PC, 2 May 2013)

The analysis revealed that contrary to Ms Lee, the Dean did not agree on English being the dominant language of the workplace, although according to her it can be considered as one of the main languages of this workplace. However, both Ms Tan and the Dean concur on what they expect in actual practice from their nursing students in terms of language proficiency. When the dean refers to student nurses as "…*implementers of the doctors' orders in the PCN*…" an implied meaning is that she expects the student nurses to be as proficient in English as the medical students. This finding specifically points to the importance of English as the language of the workplace. The analysis, thus far, shows that English appears to be invariably dominant in the workplace and specifically since it is the language of the text types of the PCN.

The majority of the students, such as Ame, Rul, Ri, and Arthi, were making the transition as bilingual and multilingual speakers from their own dominant language (e.g., Malay) to the language of the workplace. The findings revealed a number of issues related to language in the workplace. The first issue was related to the unofficial status of English as one of the dominant languages of the workplace. This disparity

between the reality of the dominant language of the workplace and the participants' vis-à-vis learning to use language did create tensions for the transitioning participants into the workplace. Evidence regarding the language expectation and the tensions the participants encountered were singled out from the data obtained from semi structured interviews. Yaaz was asked, "*How important is English for Year-one nursing students like you during clinical practice?*" Yaaz responded in the following way:

> it [English] is very important because we have to read what the doctors write [in the case notes] and to understand and interpret it …our English have [has] to be good …If others cannot understand, it will become a communication problem… in the clinical area, most of them, the staff nurses and my friends use Malay... it is very challenging. It is full of ups and downs. If we are good in English, we will be able to understand our subjects and our English speaking patients easier as it is all in English.
>
> (Int, Yaaz lines 91-95)

Aside from revealing Yaaz's stance towards English the analysis also indicated the reality of the languages spoken in her workplace. Yaaz's concerns on the need to be "…*good in English*" to be understood by others reveals her own expectations, regarding her proficiency. When she says, "…*in the clinical area, most of them, the staff nurses and my friends use Malay... it is very challenging,* it points to the subtle reality of the languages spoken in her workplace. It also indicated her belief that her peers and she could have met the range of challenges they faced, which included the need to read and use the Case Notes, and be able to effectively communicate with others, had they been proficient. Besides capturing her perspective with regards to the expected levels of proficiency she ought to possess on transitioning, the analysis also conveys a message regarding the bilingual nature of her immediate workplace environment where most of them speak in Malay.

In particular, the data implied that Yaaz had actually found the two linguistic systems in operation at the workplace "*very challenging*" and the code switching a cognitive load. An excerpt from field notes on observation that focused on Yaaz, is

used to verify this evidence provided by her. An insight into the tension experienced by Yaaz as well as her peers due to the operation of two linguistic systems during their transitioning phase into the workplace is noted in this excerpt from the field notes:

> The consultant and his team have left the bedside of the patient. The nursing team including Yaaz and her peers have moved into the cubicle. There is talk and a lot of code switching between the head nurse and staff nurses as nursing care plans for patients are composed in English. As they leave, Yaaz and her peers take the PCN of their respective patients …Yaaz reads PCN notes intently. Her peer asks aloud in Malay, "*PAC,*" Yaaz , *Apa maksud PAC*? [Translation added: PAC, Yaaz, what does PAC stand for?]. Yaaz does not answer and is engrossed in her reading, another question is posed. Yaaz, now lifts her head and mumbles an answer which is hardly audible. [Yaaz looks a little irritated]. Her friend continues to read and asks more of questions in Malay. Yaaz is interrupted but answers her briefly, at times. Once she was heard telling her friend Ain, in Malay "…*kalau nak tahu detail dosage tengok kardex*. [Translation added: …to know details of the dosage, look into the Kardex]. All three are reading. Yaaz reads silently while her friend is reading out aloud… sometimes she repeats what she reads. Yaaz on the other hand is taking down notes. [OC. They appear to be preparing for an important event]
>
> (Obs 8Yzlines.2150-2160)

When Yaaz, "…does [did] not answer…" her friend, and continues to be "engrossed in her reading", her subsequent terse response-her para linguistic actions reveal that she was irritated. A possible reason for her looking "irritated" can be traced to the data from an interview where she had revealed that she found "… read[ing] what the doctors write [in the case notes] and to understand and interpret it," challenging and to do that she asserts "…our [her] English have [has] to be good" (Int Yaaz. Lines18-19). The other reason for her irritation appeared to be the situation created by her friend Ain, who had the task of decoding the texts, establishing the links, as well as understanding the texts. Yaaz had to play an additional role as an intermediary during these instances. This analysis is consistent with the evidence provided by Yaaz in the interview where she implied that having to operate in an environment where two linguistic systems were in operation a "challenge".

Similar evidence of the tensions created by the difference between the official stances related to language and the reality of the language(s) spoken in the workplace was also captured in the interview data from Arthi. Her response on how she would describe her initial experience of using English in the workplace is:

> I never spoke English before [entry to clinical setting] but now I have to communicate in English… but we do not at all time speak in English, but we do read and write in English all the time …I have problems in reading the case notes, when I read I cannot understand exactly what is required … and I sometimes write down things I have never heard….
>
> (Int Arthi line 24-28)

Additionally, the novices' level of proficiency prior to entering the workplace also appeared to have implications on their experiences with English as one of the language of their workplace. Ame, another participant had entered in the nursing program with a 'B' grade for her SPM English paper, which is the grade attained at the completion of their school leaving certificate examination, the SPM (Sijil Pelajaran Malaysia, which is equivalent to the O-levels). The following interview excerpt captures Ame's response to the researcher's question on the language(s) used in the workplace, especially when she read the PCN.

Ame offers an interesting perspective on her initial experience with the English language in the workplace:

> I need to understand the doctors' handwriting and then use the medical jargon in English… It is all in English… actually when I read in English, I can understand it slowly but it is just when I talk, I couldn't speak fluently. That's the problem …Well, the doctors are Malay but they speak in English so I have to speak in English also. The problem is they want to be fast due to a lot of work, so when I speak English, it drags time so they will just tell me to speak in Malay…
>
> (Int Ame lines176-178)

The analysis illustrates Ame's anxiety regarding the stance toward English as one of the main languages of the workplace. Like Yaaz, as the analysis suggests, Ame experiences a "cultural tension" (Bianco, 2000, p. 93) that the doctors despite being

from her own linguistic group spoke in English. Despite this culture shock, Ame had made attempts to use and speak in English. However, the analysis illustrates little evidence that Ame, like Yaaz, has not received the much needed extrinsic motivation to use the language of the workplace specifically medical language. The analysis also implied that due to nature of the fast paced workplace setting, the doctors were constrained by time and could not stop and listen to Ame's halting explanations in English.

This finding was further strengthened by Ame's response to another follow up question on, "*What additional knowledge might have made your entry into clinical practice in the hospital setting better?"* Ame explicitly states, "*I think I should have good English knowledge so that I could speak better and fluently*." (int.line162). Although, her response revealed an unmet expectation it also captures her view on the best way of fulfilling her expectations.

The findings revealed Ame, Arthi, Yaaz and her friend Ain's varied experiences when they had to use English (the language of their workplace) and the texts of the PCN, on transitioning into the clinical setting. All three novice students found using English challenging. The analysis reveals the position of English as one of main languages of the workplace and the reality of the other languages used in the workplace. Consequently as the analysis indicated, this had created some anxious moments in Yaaz, Ame and in their peers when they had to use the PCN which is in English.

Findings from this section also revealed as Bianco (2000) informs that contemporary workplace environments such as that of this study are multilingual, where languages other than English "justify their space" (p. 105). Bianco's argument

is that language diversity such as that of this workplace should not be "trivialised" is also a point to be considered.

The next section discusses the experiences of the participants in dealing with the ubiquitous medical terminology and abbreviations in the texts of the PCN during the transitioning phase into their workplaces users of the PCN.

Decoding medical terminology. Novice year-one student nurses are assumed to share knowledge of the terminology and abbreviations of their profession. Data from the participants, however, revealed that extensive presence of discipline- specific medical language in the multiple text types had made demands on their reading. Interviews with Yaaz, Arthi, Eva, and my fieldnotes, provide evidence of their somewhat unpreparedness to deal with the language of medicine. Yaaz provides initial insights into her experience in dealing with terminology and abbreviations in the text types.

Yaaz says:

> …as for the Case Notes, I really can't understand it due to …terminologies. I have not learnt many of the terminologies … Sometimes due to a single terminology I cannot understand the whole sentence as it brings a different meaning to the doctors' orders.
>
> (Int.Yaaz Lines25-26)

The excerpt specifically illustrates that Yaaz's difficulty in using the PCN was due to the pervasive use of medical terminology and abbreviations. The transitioning into the workplace was not smooth for Yaaz, despite her proficiency and background in medical sciences. This is highlighted when she reveals that she had sometimes misconstrued the intended meaning of a doctor's order in the PCN because of a single terminology. Data from Yaaz implies that medical language had made demands on her reading of the text in the PCN. The concern raised by Yaaz is also shared by Arthi.

Arthi provided a specific example of an instance where an unfamiliar medical abbreviation used in the PCN posed her some apprehension in carrying out an intended nursing task. Arthi describes her experience as follows:

> The other challenge is from the case notes … I couldn't also understand the doctors' orders. …I did not understand the short forms used, they did not use the international standards. Like OT in surgical ward, the order will be "send client to OT" and I thought it means send patient to operation theatre but it actually meant send patient to "occupational therapy." Language is no problem but the terms that everybody uses in the text especially doctors use.
>
> (Int Arthi lines 53-58)

The data presents an insight into Arthi's anxiety when she had to use the PCN. The abbreviation "OT" in view of its dual truncations in the example cited obviously has confused Arthi, a new user of the PCN. The confusion over "OT" obviously points to Arthi's unfamiliarity with the standard and universally accepted abbreviation for the medical terminology "occupational therapy." Being in the context of a surgical ward it is apparent that Arthi has also been exposed to the loosely truncated abbreviation "OT," which is used orally to mean operation theatre. Hence this caused confusion for the novice. The quote, "language is no problem but the terms that everybody uses in the text …" implies the difficulty novices like Arthi have in discerning pervasive and unfamiliar abbreviations in the PCN with which they have to deal with every day.

> To a question on what ability she thinks could help build her confidence during the early weeks of her clinical practice, Arthi's terse reply was, "language…medical language, I think if I can understand and speak medical language like doctors I can be a good nurse." (Int. Arthi line 100-101)

The analysis suggests that Arthi was aware that proficiency alone would not suffice. But what she believes would really help her in acquiring competence in reading of the PCN is, "…medical language…." This data further provides evidence of the implied difference between the official stances related to language of the workplace, the participants' own language and the one they have to learn specifically the language of medicine.

Likewise, Eva was asked in one interview to describe her impression of the PCN when she read it for the first time in the ward setting. Eva's response was:

> I found pages and pages of medical terminology…firstly the text was new to me. I have not seen the PCN so closely. As for the terminology …I did not understand almost 100% of what I saw…
>
> (Int Eva lines 6-8)

Eva's reflections like that of Yaaz also suggest that "medical terminology" was in fact one of the earliest challenges that she had encountered in reading and understanding the PCN. Her use of phrases such as, "…pages and pages of medical terminology" in the PCN and not understanding, "…almost 100 % of it…" illustrates in reality how overwhelmed she was by the ubiquitous presence of terminologies and abbreviations in the text which she could not decode. However, data from a subsequent excerpt shows that Eva, like Arthi, realises the need for them as users of the PCN, to share knowledge of the terminology and abbreviations that form the currency of their profession. Eva informs:

> As a student, you need to be good in English because even common English words like "`ve" the short form for "have" in the PCN can confuse student nurses who are weak in English. They may think "`ve" is a medical terminology. ….my friend Rafa actually thought that the word, "`ve" in the notes we were reading is a medical terminology.
>
> (Int Eva lines26-29)

The information proffered by Eva on Rafa's problem highlights two issues. Firstly it shows that certain words in everyday English might have a different meaning in medical language. This is exemplified in Eva's illustration of the confusion experienced by Rafa. Rafa had mistakenly thought that the contraction"`ve", in lower case for have, was a medical abbreviation. In fact, "VE", in upper case is a medical abbreviation for the procedure known as vaginal examination. The researcher was unable to immediately verify the information provided by Eva. However, an informal

interview with Ms Sharifah, the principal of the nursing college, helped to clarify the issue. She explained:

> To some extent, as a novice Rafa, Eva's partner cannot be blamed if she was confused over the contraction mentioned by Eva. "VE", in upper case, she declared, "is a medical terminology, an abbreviation for a procedure known as Vaginal Examination"
>
> (Ms Sharifah, PC, May 15, 2012)

The analysis nevertheless, is significant as it had shed light on a pertinent issue. Even a small unfamiliar linguistic unit such as an ellipsed contraction "`ve" seemed to have the potential to confuse new users like Eva and Rafa's understanding of the texts. The question that arises is what really contributed to this confusion. Was the difficulty really a case of contraction, capitalization or proficiency as Eva implied? Could reading the PCN be a little less daunting for novices like Rafa had she been proficient? Data, however, illustrates that it may not be necessarily so. For example data shows that Eva and Yaaz, despite being proficient had an unsettling experience initially in dealing with the language of medicine. This evidence points to medical jargon in the PCN rather than proficiency as the cause of both Eva's and her friend Rafa's difficulty in reading the text types.

When this was pointed out to her during the interview, Eva admitted that she too had encountered a problem arising from unfamiliarity with medical abbreviations used by the writers of PCN. Eva recalled an example of one such instance when not knowing medical terminology and abbreviation in a particular context posed serious problems in her understanding of the Case Notes. The excerpt below illustrates this evidence:

> I have many difficulties. First I must understand all the medical terminologies, the abbreviations. Not knowing these can be really serious. For example the abbreviation TRO Thrombosis, I know what thrombosis is. I also know what, "thrombosis due to immobility" is. But I don't know what "TRO Thrombosis" is. As a 1st year student, in the initial weeks, my partner, Rafa and I did not know the TRO abbreviation, so in our nursing care plan we focused on the first

> diagnosis which is something like, "patient has uterine fibroid." We neglected TRO Thrombosis which means to "to rule out Thrombosis". This is because we didn't know how to read the abbreviation TRO
>
> (Int2 Eva lines84-93)

The data on Eva and her partner Rafa points to a significant finding. In the case of Rafa it was evident that she could not understand her reading because she neither had enough knowledge of terminology or abbreviations nor general language proficiency. Likewise, it also strengthened Eva's own confession that despite crossing into the threshold of clinical practice, she lacked sufficient knowledge of medical terminology to ease her transitioning. Despite their proficiency levels, the data suggests all **five** novices, Yaaz, Arthi, Ame, Eva, Rafa and their friend Ain were equally overwhelmed by their initial close encounter with terminologies and abbreviations in the PCN.

The next section discusses the theme of multimodal representations that were characteristics of some of the texts in the PCN and how they were read by several of the participants.

Linguistic and multimodal representations. The findings from the participants revealed that besides the ability to read the written texts, reading and using the PCN also involves "reading," visuals and other multi-modal forms of representations (Jewitt, 2008). In response to my interview question on the challenges the participants (Yaaz, Arth and Ri) faced when reading the PCN during clinical practice, Yaaz, listed a number of hurdles that had affected the meaning making process of her reading such as, "not knowing to pronounce names of drugs"; … language words such as "intermittently" and "alleged incident" … or due to the brevity of doctor's orders for e.g. "perform dressing 3 times a day with no other instruction…," (Yaz. Int.lines 62-65).

In addition to the various challenges by the faced novices like Arthi and Ri also included to this list, the ubiquitous use of signs and diagrams and written text that formed an important part of most of the text types in the PCN. Signs, visuals, in the form of diagrams and the presence of semiotic modes of representations, were characteristic of some of the texts in the PCN (see figure 4.1). The issue of multimodality featured in an interview with Ri. In the following excerpt, he describes some of the ways in which diagrams were used in the PCN:

> in doctors' notes, sometimes to show the condition of the heart, few arrows are used. I have also seen diagrams of lungs and the stomach with names of different medication besides the diagrams (see Figure 4.1) to describe condition of patient. But I found it difficult to understand…I could not explain to patients or care giver about patient's condition because I did not understand them…
>
> (P.obs.Int Ri Lines.10-12)

In a similar vein, data singled from Arthi's interview excerpt too revealed that multimodal text with diagrams and text were not easy to read. Arthi reveals:

> …Diagrams also pose problems sometimes for example to indicate Lungs Bronchiole Asthma, they [doctors] will draw triangle to represent the shape of lungs. Sometimes they would shade a certain spot and put a mark there, with a few words or abbreviations. It is really difficult to understand this type of diagram.
>
> (Int Arthi lines.73-75)

An excerpt of the multimodal text extracted from the Patient Case Notes that had delayed the novices' reading and interpretive effort is provided in the next section.

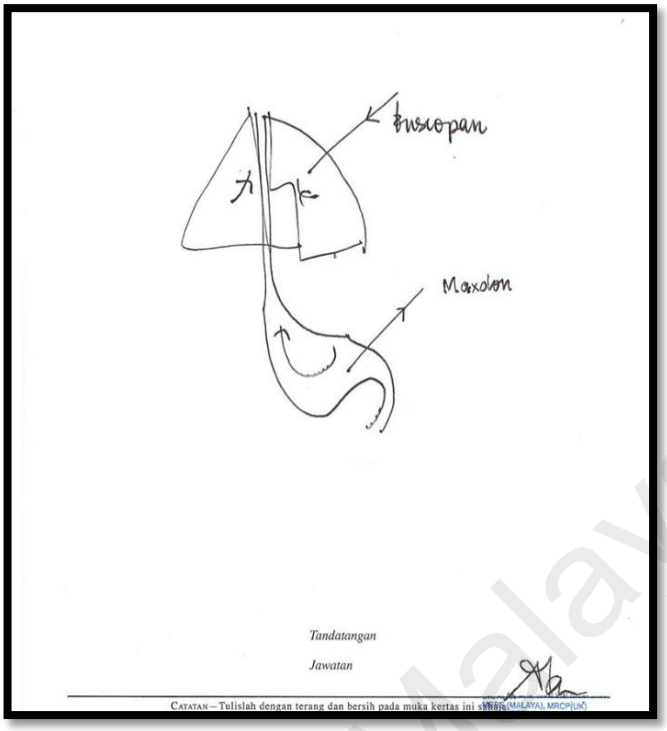

Figure 4.1 Example of an excerpt from Case Notes.

Jewitt (2008) informs that writing has been brought in textual relationships or "even exchanged for visual and other multimodal forms of representations" (p. 243). The data serves to illustrate that novices such as Ri and Arthi had difficulties in deciphering text types that had visuals and multimodal forms of representations. Ri for instance reveals that the diagrams of the stomach and lungs with just names of different medication in the text, did not provide him sufficient content. There seems to be an interplay of two issues. One, there is an issue of Ri not knowing the terminology related to medication. Secondly there is also an issue of not knowing the link between the medications and the specific parts of the organs elaborated in the diagrams.

Likewise, when Arthi talks about the diagram of the lungs and the accompanying notes that did not aid her reading, it could be linked to a semantic load. Sanz (2008) postulates that meanings can be shown through semiotic modes such as visuals along with language. However, the examples that show the interfacing of

modality and terminology at work had led to a semantic load. The accompanying sketchy diagrammatic representation of the lungs, the stomach and the heart and the accompanying notes should have rightfully helped the novices in the reading and understanding the multimodal texts. On the contrary, based on the analysis, it appears that the signs and visuals did not ease the process of reading for Ri and Arthi. The difficulty experienced by the novices in using their workplace text could be explained as Jewitt (2008) asserts (i.e., although all modes in the text contribute in the construction of meaning making in specific ways, they are individually partial). The next section discusses the overall findings of research question one.

Summary of findings for research question one. Research question one explored how year -one student nurses experienced their initial use of the texts of the PCN during the first three weeks of their transitioning from the classroom to their workplace during clinical practice. In order to capture the novices' preparedness for using the texts and their learning experiences, the transitioning phase to the workplace was delineated to encompass the first three weeks of the 12 week clinical practice. Overall, details of the findings from each of the transitioning phase revealed that the novices faced a silent challenge as they began their professional training. A major challenge emerged from using the PCN – a target literacy practice of their discourse community. Several areas that posed this challenge were identified.

A significant finding that emerged from the analysis pointed to the existence of a gulf between the language and literacy practice of their classroom and their highly contextualised, authentic PCN of the workplace. Evidence of this gulf emerged from the analysis of the novices' lived and textual experience during both the phases of the transitioning phases. Findings from almost all the participants had shown they were exposed to general things about the PCN at an abstract level in the artificial setting of

the classroom. Thus, when they had to use the authentic texts of the PCN in the context of real life circumstances of their workplace (Wenger 1998), this learning did not serve them adequately as a form of prior knowledge to enable meaningful transfer of learning to take place. Instead the findings revealed that most of the participants experienced various degrees of anxiety and frustration on their transitioning when they had to use their workplace text. The findings on the initial transitioning mapped out a trajectory of three distinct emotional phases which were characterized as: anxiety, coping and acceptance. This finding further provided evidence that three emotional states experienced by the participants, on entry into the workplace was a result of the gulf between their in-class and at work literacy needs.

The experience of week one saw the participants moving from a feeling of anxiety in using the PCN to a gradual coping with it and finally to a state of acceptance of the PCN. Acceptance was revealed when the novices were beginning to integrate the PCN and a set of literacy practices around it, to the larger phenomenon of their professional practice namely Nursing Process and Nursing Care, both of which are the defining features of their profession. The key finding on the novices' emotional adjustments in relation to their textual experience indicate the moves undertaken by the novices to engage in the legitimate peripheries of their community of practice as defined in Lave and Wenger (Lave & Wenger, 1991). This emotional adjustment had arisen in their initial experience of having to use the PCN. Sannino (2008) asserts that experiencing need not necessarily bring about a direct awareness in the participants to realise their needs. However it could lead to the "psychological possibilities to carry on the activity required for realisation of these needs" (p. 241). The emotional preparedness of the participants to use their workplace text at this point of transitioning parallels what Sannino (2008) asserts as the "individual disposition to act" (p. 241).

Findings from the subsequent two weeks of transitioning build off from their week one experiences. Findings from this phase identified the various challenges the participants faced when they had to use their workplace text. Specifically they included – a) identifying and differentiating various text types in the folder, b) making intertextual connections that could facilitate interpretations c) the multilingual nature of their workplace, d) understanding abbreviations and the language of medicine, and e) reading and interpreting the multi-modal texts with minimal language input.

The analysis of the participants' personal experiences shed light on the various complexities of using this workplace text of their discourse for a novice user. Evidence points once again that challenges the novice participants encountered were linked to the divide between in class literacy practices and workplace literacy practices. Significantly, the analysis captured their predicament at this phase of their peripheral participation in their CoP.

Findings from other informed individuals too revealed glitches in using the PCN efficiently could set off a chain reaction such as in the sourcing of relevant data about the patient and doing the needful for patients promptly. The findings and the categories that emerged appear to be crucial as they have the potential to ease the participation of newcomers into their communities of practice at their workplace (Lave, 1996) and importantly it affords access to learning (Billett, 2004). The findings also implied there was an awareness in most of the participants on the need to acquire competence in using the PCN as crucial in facilitating this transition of into their workplace Community of Practice. The findings highlight the issue of the use of artefacts and the place and role of dummy artefacts. This findings also raises the questions about ways in which the Patient Case Notes might be introduced to novice

nurses. As Barton and Hamilton (2000) contend, "this workplace is held together in many ways by the texts" (p. 23).

The next section discusses the findings of research question two.

Research Question Two:

How do Year- one student nurses interpret the Patient Case Notes during Clinical Practice at the workplace?

Research question two focuses on the participants' interpretation of what is written in the PCN: their professional workplace text, as they were considered novices at the periphery of central expert healthcare practices within a hospital. Rigby, Clark, and Runcima (1999) assert that accurate interpretation of the workplace text of hospital settings (the PCN) is crucial in preventing complications to patients. Hence, while the first research question examined the novices' point of entry into the target practices, research question two examines their transition from the initial entry towards expert practices. Lave and Wenger's (1991) theory of situated learning formed the theoretical basis to identify and develop the themes, in terms of understanding how the participants acquired a target literacy practice of their community of practice that eventually led to the development of the patient script.

The primary data sources to answer research question two of the study were drawn from: (a) observations of the novices' peripheral participation in literacy events, (b) interviews with the participants and informed individuals, (c) theoretical analysis of: (i) novices' performance strategies and the ways in which they made sense of the PCN- (ii) the expert-novice interactions and (iii) document analysis. A point to be noted is, in the analysis of findings RQ2, I have tried to display data from all the participants in different segments. However, on the relevance to particular issues as

well as the availability of participants in specific settings, data from some participants such as Rul and Eva were cited more often than those from others.

Additionally, it is also noteworthy to mention from the outset that not all interpretive attempts are observable, as some activities involved mental processing for example the listening component of the participants during their peripheral participation during CS. To some extent some of these are addressed in the interviews and in the discussion of the interviews.

Skilful reading and interpreting of the PCN is an integral part of the transitioning of the student nurses from being neophytes into becoming experts. However, as I observed initially it appeared as though a clinical setting does not intentionally set out to nurture discrete individual literacy skills. Rather it seemed the onus was on the learners to become competent in the workplace literacy practices of their CoP, though my findings subsequently showed otherwise. Due to the complexities involved in the context of a hospital as a workplace, in looking at how the novices learned to interpret the PCN, I focused on exploring four literacy events: Change of Shift (CS), Passing Report, Clinical Teaching and Medication Serving. Although these events specifically typify the routines that are the threads of life in this teaching hospital, I noted that embedded in these daily routines events were reading and writing, where specifically the written text of the PCN had a fundamental role. These events had the dimensions of literacy events (see chapter 2) based on the definitions of researchers (e.g., Barton, 1994; Heath, 1983; Papen, 2005).

The following section provides the salient features of the first literacy event - CS that was significant in that it provided, "the context for actions or literacy practices" (Searle, 2002 p. 19), in relation to the phenomenon that was being investigated, that is, how the novices learned to interpret their professional workplace text as peripheral

participants. This is followed by presentation of data from observation field notes and interviews with the participants and informed individuals. The analysis and findings provided by the context are discussed as they emerged.

Change of shift (CS): the context of participation. The care of patients is a continuing nursing process. This continuity is maintained through staff nurses in CS sessions. As an initial preparation for the CS event, the chief staff nurse of the concluding shift who is at various stations in the ward, has to retrieve salient information on the health status of their assigned patients. This information mainly comes from the PCN. The data can vary from assessment data to diagnostic test results on a patient's actual health status. This information is then integrated and interpreted into a statement using the format of Shift Report of the institution (Strople & Ottani, 2006).

During CS, a staff nurse- the key spokesperson informs the incoming staff nurse and her team who are going to replace the team of nurses who have undertaken the care of patients during the earlier shift. The spokesperson for the outgoing group reports on the care of each patient in the ward in terms of what constituted their treatment. At this juncture, the incoming staff nurse too, is given the opportunity to engage in a dialogue to verify or disambiguate any issue crucial in the care of the patients (Friesen et al., 2012). If there is a need to clarify and highlight significant aspects related to patient care, a dialogue ensues, at the point of exchange between the incoming and outgoing staff nurses. This step ensures that although the carers of the patients in the ward changes, there is continuity in the care or treatment of the patients (Friesen et al., 2008).

In the following section the researcher provides an in-depth description of analysis of four excerpts of CS routines involving the participants, the actions of

individuals, activities and the use of their workplace text in these events. This was to examine if there was a recurring pattern between what was observed being consistent with definitions of CoP and the literacy practices that maintained the practices of CS.

Elements of the literacy event. Literacy events can be described by observing and recording what people in a particular setting do with the written text of the workplace. The elements of the literacy events have the following dimensions.

Positioning of experts and novices. The accomplishment of processes and tasks of each workplace is invariably facilitated by specific literacy practices of reading and writing (Papen, 2005). Hence, workplace literacy events can be described by observing and recording what people in a particular setting do with the written texts of the workplace (Heath, 1983; Papen, 2005). My field notes focused several instances of novices' peripheral participation, involving some of the participants namely Yaaz, Arthi, Ri, Rul, Ame and Eva during CS at two ward settings: the gynaecology ward and the surgical ward. The aim was specifically to understand the participants' peripheral participation in their CoP and to look for recurring patterns of actions and the use of the workplace text. My observation notes depict the overall scenario as thus:

Excerpt one

> …CS is taking place along the corridors, in the midst of morning buzz of moving trolleys of all kinds…. There is an air of seriousness surrounding this event. A staff nurse from night shift is waiting anxiously to hand over her duties to the incoming morning staff nurse... Yaaz, Arthi, Rul and two other senior student nurses, have positioned themselves for the event, behind the incoming staff nurses, in silence. The off going staff nurse has placed the open PCN of one of her patients on a trolley- top, her gaze as well as that of the others are focused on the texts. Her counterpart stands opposite the PCN facing her peer…
>
> (ObsYaaz Arthi Rul line1990-1997)

The excerpt reveals that the two expert staff nurses from outgoing and incoming shifts were in the forefront, facing each other as they get ready to discuss the status and care of their patient. The opened PCN implied it was going to be the point

of reference. Novices like Yaaz, Rul and Arthi stood a few paces behind their seniors and the experts, to observe, listen and take down notes. However, the analysis revealed that the more senior year- two nurses (depicted as "Y" in Figure 4.2) stood closer to the expert nurses while the junior year-one novices (depicted as "X" in Figure 4.2) stood behind them, further away from the PCN.

The researcher has also documented another occasion of CS that took place at the surgical ward, to confirm the findings of Excerpt one. Excerpt two reveals the some of the key recurring pattern of actions and interactions noted in the first excerpt:

Excerpt two

> It is close to 2pm and it is CS time. Students and staff nurses are grouped along the corridors waiting for the event to take place. At Ame, Eva and Ri's station CS has begun. The participants are standing behind the staff nurses…the novices appear to be passive receivers of the information during this verbal interactions between the staff nurses. …The spoken interactions and the reading is loud and bilingual -in English and Malay language. The outgoing staff nurses verbally explain subjective information on each of their patients e.g. on surgical procedures scheduled for the patients as ordered by doctors, blood tests, wound dressings … etc. The terse exchange of information during the session is also occasionally interspersed with light banter … the novices are jotting notes…
>
> (Obs.Ri.Eva.Ame.lines3528-3542)

The analysis of excerpt two confirms the findings that emerged from excerpt one. The purpose of this observation was to look for actions, behaviour, interactions and to investigate the use of artefacts and to see if there were recurring patterns (Marshall & Rossman, 2006). The researcher found, like in the first excerpt, the expert nurses at the inner circle were surrounded by novices at the outer circle. The researcher also noted the staff nurses and students converging around a PCN. The experts are discussing and exchanging information in English and in the Malay language. The participants in this CS too appeared to have only an "observational lookout post" (Lave & Wenger, 1991, p.95) place within this context.

The key findings from excerpts one and the two illustrate the positioning of the individuals: the actors around the PCN and the novices furthest away from the experts and the core. This analysis parallels Lave and Wenger's (1991) views of the centripetal practices - experts perform the core activities while the novices learn from the periphery. Their views affirm that "observations" is a way of "participation" and "a way of learning" (p. 95) in a CoP. A significant finding that emerged from the analysis revealed the position of the core text: the PCN in CS, which is discussed next.

The core text: the PCN. The PCN, the workplace text of hospital settings was identified as a core text of events in hospital settings especially in CS. This constituent of the literacy event was noted by the researcher's field notes during CS. In Heath's (1983) definition of a literacy event, text occupies a central position in the interactions of the key participants. The researcher's field notes present evidence of this workplace artefact:

> ***Excerpt three***
>
> The PCN is on a trolley. The key staff nurse from night shift is waiting anxiously, to hand over her duties and update the incoming staff nurse who is going to take over the responsibility of care of their mutual patient....The off going staff nurse refers to her hand written notes when giving an explanation on the details of her patient, reason for admission, patients' conditions and details of the current nursing plans based on doctors' orders. Her handwritten, summary of short notes, accompanies her remarks like: "*patient complained of nausea in the morning. Dr notified. Medication tab Maxalon given at 5 am…* " Her counterpart cross checks the information from the PCN on the trolley...The spoken interaction is often interrupted or stopped when verification is needed or when doubts arise.
>
> (Obs.Yz/Arthi.Rul.line 1994-2017)

The analysis confirms that the PCN has a central role in the CS. The data shows the experts are reading aloud relevant data from the PCN that comprises multiple text types before they arrived at an interpretive statement. A factor that seems clear is that the texts of the PCN are not read and understood once. They are looked at again and again as the demands of action require reference to them. This was illustrated when

the expert "cross checks the information..." or when "verification is needed or when doubts arise," by the incoming nurses.

During CS, the incoming and outgoing staff nurses stood around the trolley and used the PCN (see Figure 4.2) to update each other of their patients' health status to ensure continuity of care. The analysis shows the interactions and exchange of patient care information which transpires within the CS event where the PCN is core, affirms Heath's (1983) definition of what constitutes a literacy event. Consequently, this enabled the experts to compose integrated and interpretive statements such as on the patient's health status and the patient's response to treatment.

The importance given to this literacy event: CS could also be sensed by their paralinguistic actions, such as the attentiveness of all the actors especially that of the expert nurses as they probed and examined the texts of the PCN. An assumption at this point is that CS also served to orientate the novices to the social context specifics of this communicative practice, specifically the pivotal role that the PCN is set to play in this literacy event. The analysis of excerpt four which is a segment from the researcher's field notes of Ame, Ri and Yaaz's attendance in CS at a surgical ward verifies this assumption:

Excerpt four

> Procedures … and updates are explained mostly in English by the outgoing staff nurse. Her counterpart, the incoming nurse listens attentively, while cross checking the information received by referring to the notes in both in the Nursing Care Plan and in the Case Notes until she locates the selected segments. The texts of the PCN are frequently scanned….The vibrant blue colored uniform against the pale green uniform of the experts revealed the attendance and presence of the novices in the event. Hunched together, Ame, Ri and Yaaz are taking down notes into their pocket-sized notebooks. None of them are talking
>
> (ObsAme/Ri/.37-52).

The analysis suggests two types of interactions that were simultaneously taking place during CS. One was the face to face interaction between the expert staff nurses and the other was their interactions with the texts (refer to Figure 4.2). Both these interactive actions were significant. These interactions required the ability to use language and certain spoken interactional patterns such as asking questions and turn taking devices. It can be inferred that the novices had seen how the data from the PCN were drawn upon by the experts when they wanted to know their "patient script".

The findings implied that these established literacy practices such as the talk of the experts that emanated from their reading of the PCN during CS, had sensitised novices like Ame and Ri to the use of new literacy practices of their community. According to Lave and Wenger (1991, p. 109) the talk taking place within a practice has the potential to fulfil a range of functions such as, "focusing, shifting attention, supporting forms of memory…," (p. 109) all of which are an essential form of learning in any CoP. The link between the PCN and CS could be seen from the way the experts utilised, read and cross -examined the contextualised texts of the PCN. The actions of the experts seemed to have an effect on the novices who are observing them from the periphery. This finding was triangulated through both individual and group interviews. Yaaz and Ri were asked respectively about their participation in CS. Yaaz responded:

> if I want to know about my patient's condition I can find out from the PCN but it won't be very clear. CS helps. I found out that when I missed it [attending CS: elaboration added] once or twice. That day I was lost and did not know what to do the whole day…
>
> (Grp.Int.Yaaz.Ri lines 87-89)

The belief that she would "be lost... the whole day" if she missed the CS where discussions and interactions were mostly centred on the PCN implied that Yaaz would

not be able to participate in the core activities of her CoP. Importantly, the findings indicated that as researchers (e.g., Barton, 2007; Heath, 1984; Papen, 2005) inform, Yaaz has the realisation that her reading of the PCN can only become meaningful if it is embedded in the everyday activities. In this case, the reading would have to be situated in the context of CS, before she can make sense of her patient's condition.

Like Yaaz, Ri too implied during a post observation interview that he too began to rely on CS for the following reasons:

> every day I have new patients, so everything is new, I don't know the diagnosis of the patient …in the beginning of clinical practice I didn't know which part [of the PCN] to read from, even if I know which part to read I did not understand what I was reading… so I try to listen to CS and try to jot down points as the staff nurses reported on …the plans of the doctors for their patients for that day to the staff nurses of the new shift….
>
> (Grp.Int.Ri/Yz lines30-38)

Ri revealed that he found extracting information on his new patients daily from the texts in the PCN on his own difficult. A supposition is that during CS, Ri had observed how the expert staff nurses utilised the various texts written by other experts to come up with interpretive statements about their mutual patients. Hence he, and presumably Yaaz, had resorted to listening to the interpretive talk, the verbal information exchanges and interactions between the experts during CS. The analysis reveals that they appeared to have learned that, as novices, they could quickly keep track of the daily patient admissions and health status updates, by listening to the interpretive talk emanating from the PCN. The experienced expert nurses knew how to utilize the PCN and behaved accordingly in a smooth transition.

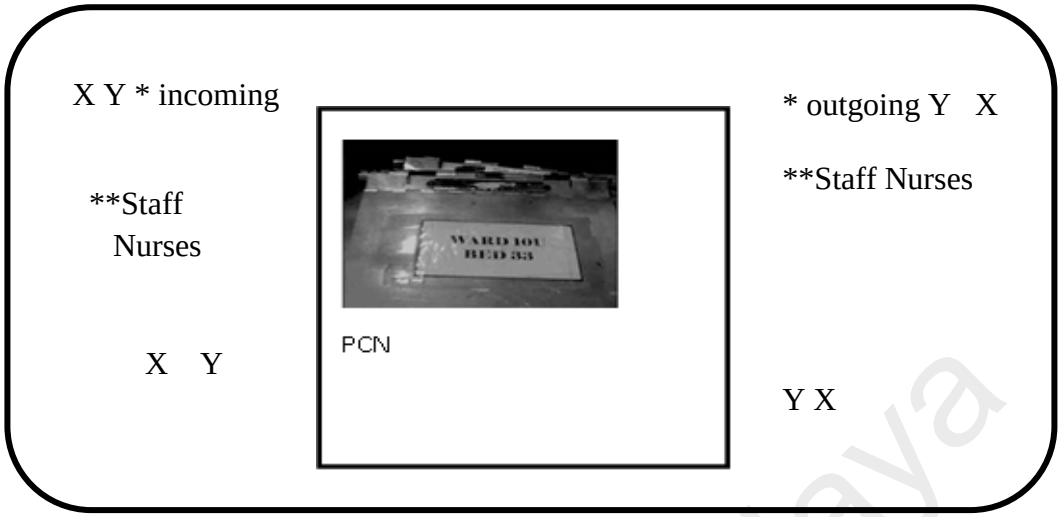

Figure 4.2 Depiction of the Positions of Expert-novice and Core Text in CS.

Note: X refers to the Year-1 novices
Y refers to the Year -2 student nurses
* Key Spokesperson for the incoming/outgoing teams e.g. staff nurses (Experts)
** Other staff nurses (experts)

In contrast, novices like Yaaz and Ri had to negotiate their practices by making their own interpretations of the texts and found it challenging. The novices' responses implied their awareness that there is a connection between the cultural ways in which the experts used the PCN in CS and in facilitating their learning process. Keating (2005) and Wenger (1998) too affirm that learning is about locating the connections between things and making meanings of them as the finding suggests. The findings from this section are consistent with the notion that the crucial nursing practice of CS was maintained through a set of literacy practices and these literacy practices emanated from the multiple texts of the PCN. My observation notes depict the overall scenario as illustrated in Figure 4.2.

The following section gives an account of the individual participants' preparations to read the PCN and a sense of their interpretive efforts, as they participated in CS.

Peripheral participation. In order to become part of a community of practice, novice student nurses have to eventually participate in the sociocultural practices of their CoP at the workplace. This participation is vital in enabling them to gain "mastery of knowledge and skills" (Lave & Wenger, 1991, p. 29) and facilitate their move from the peripheral toward full participation. Participation is not only peripheral but also legitimate. Thus, Peripheral participation also referred to as Legitimate Peripheral Participation (LPP) is seen as a key contributing factor in providing the lens to understand these novices' learning (Lave & Wenger, 1991).

This section discusses how the concept of peripheral participation in CS contributed toward the novices' reading and sense making process of their complex workplace text. Findings from interviews in the following sections reveal that as the novices participated in CS with the experts they developed an awareness of the process; their peripheral participation which had appeared to them merely as observing in silence was actually, "a way for learning" (Lave & Wenger, 1991, p. 95). The following section deals with the dimensions related to their theory of learning as a social practice in a CoP. These sections although demarcated, are in fact interconnected because in their notion of learning, these dimensions build on one upon another.

The data for this section is drawn mainly from observations, interviews and triangulated with documents, in some instances. The data can be (and perhaps should be) inclusive of all participants. However, in the following sections, the data from novices such as Rul, Eva and Yaaz seemed to be prioritized. I deemed this to be more

valid, as the analysis from these sources provided a deeper and richer view of practices adopted by participants.

Observation of experts and text. The concept of non-participation (Wenger, 1998) that had been added to the earlier notion of Lave and Wenger (1991) provided the lenses to understand how the novices made sense of data found in the PCN of their patients, during CS. Non-participation refers to "the activities that newcomers do not engage in," (p. 164). This theme was evident during the CS when it was noted that not all the actors in the event were active, specifically the novice participants. For instance my observation field notes had revealed that Yaaz and Arthi were, "*mere spectators to the event*" and they participated "*throughout the event by merely being present without talking*…."

(Obs.Yz/Arthi.lines2022-2024).

Additionally, the physical context in which CS took place also depicted the notion of the non-participation of novices. The positioning of the actors namely the experts and the novices (refer to Figure 4.1) also appeared significant, as it seemed to reflect the reality of the notion of LPP in the community of practice. For example, Yaaz and Arthi, as novices literally, "*occupied the peripheries, behind the experts in silence*". From an outsider perspective, they appeared as if they were "being deliberately kept from participating more fully" (Lave & Wenger, 1991 p. 36).

This seeming act of non- participation of the novices also appears to counter any notion of active participation. However, as Heath (1984) and Barton and Hamilton (2000) acknowledge, people can participate in literacy practices in a variety of ways. One of these include non-participation or playing the passive role as adopted by novices. As what goes on during listening in the CS is not visible, findings from

interviews with novices such as Yaaz and Rul make for some visibility of the literacy learning process.

The following two excerpts from interviews suggest the development of a growing awareness among the novices that there is more in store for them from their non-participation during CS. Analysis from an interview data with Yaaz exemplifies this awareness.

To my question on whether novices like her should be given an opportunity "to speak instead of just listening during CS," Yaaz replied thus:

> I think just listening during CS is good, as I learned many things in the process." She listed them down as learning, "…. about patient's behaviour, procedures that need be done, doctors' orders and their use of style and language.
>
> (Grp. Int. Ri/Yz line 34-35)

The analysis also revealed that contrary to what appeared to be a passive role during CS the participant's peripheral participation was in fact active. Most of the novices had listened and observed actively. For instance, the data shows how Yaaz had learned to draw on CS. Yaaz had listened to the transfer of information on patient care records by the expert nurses which helped her form a mental picture of the health status of her patient or "patient script". Yaaz implied that it had helped her to learn the language of such interactions and taught her the issue of relevance. The staff nurses only reported on those factors that affected the continuity of care.

The analysis also suggests that Yaaz, as a novice, was aware of her own shortcomings in terms of her interpretation of the PCN. Thus, she had listened to the verbal interactions of expert staff nurses at the point of handing over of shift. Putting together the varied data from the resource of the verbal reports, the interactions, questions, clarifications and confirmations between the experts of her discourse community had helped Yaaz to make sense of the PCN texts that she had read.

Besides that, the analysis also suggests that Yaaz had found the reading and interpreting the PCN on her own a tedious process. Yaaz's use of words such as, "*I may not interpret the notes well*" or "*it wastes a lot of time*" reflects pessimism and to certain extent it appears as though she was looking for a quick solution. However, it really shows self-awareness and a concerted effort at becoming trained. As novices, this strategy had helped Yaaz and others in making sense of data in the PCN, in the context of the Gynaecology ward where many of Yaaz's and Arthi's patients were terminally ill. The analysis revealed the crux of Yaaz's concerns was that, she may not be able "*to interpret the Case notes well*."

Incidentally, Yaaz had learnt early that she could get a better picture of her patients by listening to the talk between the experts that was a result of their interpretations of the data in the multiple texts of the PCN. The issue here is the relative ease of interpretation of spoken texts as opposed to written texts for the young novices. Additionally taking down relevant notes of these spoken interactions has also helped Yaaz reinforce her understanding of aspects of the continuity of care and her patients' condition. In sum, Yaaz, a conscious, self-initiated learner had used her strategic position of legitimate peripherality and learnt to take advantage of the various features of CS to help with the reading of the PCN.

Another similar evidence was obtained from Rul's experience**.** The analysis suggests, in contrast to Yaaz, Rul's initial experience of CS appears to be one of uncertainty. His awareness of the scaffolds offered in CS to facilitate his interpretation comes much later unlike that of Yaaz's. He revealed he had sat through several CS sessions, without knowing what to do. He knew he had to retrieve information from the talk of the staff nurses but he describes it as, "puzzling." He revealed that his note taking skills were equally disastrous. Rul revealed that during CS:

> I had listened to staff nurses discussing medication aspects of patients but to me it was puzzling. I knew I had to get some information but didn't even know how to take down notes or how or what to write into my notebook. Some alert staff nurses will sarcastically ask me, "adik you tak ambil report ke"? [Translation added: Brother, aren't you taking down any notes of the report?]
>
> (Int. Rul lines40-46)

As his "non- participation," and poor note taking skills became evident to all, Rul realised he had to train himself for participation in CS sessions. Rul confesses that it took him sometime before he realised that his peripheral participation during CS had the potential to facilitate his sense making especially when he read the PCN on his own. For a start he decided to listen to the "interactive and interpretive" talk of the expert staff nurses. This is implied when Rul informs:

> I don't take active part during CS but I began to listen more carefully but only after some time …because I realized CS is important. I have to perform procedures and I can't do them correctly if I don't have the full information…"
>
> (Int.Rul.111-114)

The next section discusses perspectives of some the participants of their peripheral participation in CS. Findings from interviews and observations revealed that although some of the participants were hazy in the beginning, they became progressively sensitized to the learning that was embedded and presupposed in the practice of CS.

Preparation for participation. Lave and Wenger (1991) conceptualise learning as a dimension of their theory of social practice and it inevitably involves the participation of the whole person in "the social practice of the lived-in world" (p. 35). Interview data from participants like Rul and Eva revealed the different initiatives taken by them as preparation to participate in the practices of their workplace CoP. Two excerpts that capture different dimensions of their preparation for participation namely internalisation and reflection in the practices of their CoP respectively are presented.

Internalization. An indication that Rul was beginning to learn from the social interactions that take place during CS was sensed during an interview. When asked how he had prepared for participating in CS, Rul revealed that he had not only trained himself to listen attentively to the expert' talk but he too began to prepare himself mentally for the CS event. As a preparatory step he reveals:

> I read and try to jot down information. Then I try to connect the different bits of information I have on medication, biodata, vital signs which I got from their talk in CS and actual condition of patients. …next, I rehearse in my mind how to present the cases of my patients to my tutor or anyone who can stop and ask me on the status of my patients…
>
> (Int Rul lines111-115)

The analysis illustrates Rul's preparation to participate in the social and literacy practices of his CoP. The articulation of Rul's thought process reveals how he made sense of the varied data on his patients' condition obtained from his own reading of the PCN and from CS to get a composite picture of the "patient script" or health status of his assigned patients for the day. As a first step in the process, he read the PCN. He then connected the "different bits of information" and the ones he had retrieved from the spoken interactions between the expert nurses, during CS. Subsequently, Rul reveals he linked this new text with the text he has in his mind of the patient script that he had started to build. This disclosure threw light on how Rul is making sense of his reading of the PCN.

The data suggests that Rul plugs the gaps in the text, which he had started to compose from his initial reading of the PCN with the bits of information that he had recently gathered during his peripheral participation in CS. The data however, indicated that Rul's sense making process of the texts did not stop just at connecting the bits of information. Rul's next act involved "rehearsing" the new text "in his mind." Rul also reveals his intent of trying to reinforce this new text in his mind so that he would be able to participate in his CoP.

Building and fine tuning of Rul's understanding of the "text" he is constructing in his mind is not visible. However evidence from interview data suggests that Rul is trying to internalize a "text" comprising varied data from the PCN in his mind. An indication of this act of internalization was sensed, when Rul revealed that he tried to read the PCN before CS as a jump-start to the sense making process. The notes he jotted at this stage from his reading were crucial as he had gained a sketchy image of his would-be patients of the day (see Figure 4.3). Although this "text" enabled him to perform fundamental tasks e.g. bed-making for his patients, from his perspective, the text was not wholesome. With this initial text structure in his mind, he then participated from the peripheries of his CoP in the CS event. Rul then listened to the talk and observed the interactive social interactions of the experts around the PCN. Rul's intent was to get to know as much information as he could on what has been done for his patients.

Vygotsky as cited by Cazden (2001) refers to one kind of learning that emanates from social interactions and talk by the metaphoric term internalization (p. 75). The data shows the social interactions of the experts around the PCN that took place during CS had facilitated Rul's sense making of crucial data from the texts. Rul's rehearsing of a script is indicative of increasing understanding of the need to acquire competence in using his workplace text as a peripheral participant. Rul's re-construction of the steps for preparing for participation helped him make sense of the data from the texts implied an act of internalization, while Lave and Wenger (1991) argue "participation cannot be fully internalised as knowledge structures" (p. 51).

In the next segment I present a strategy employed by Eva in her preparation to participate in the practices of her workplace CoP. Interview data with Eva revealed the development of reflective practices as she, Eva, began to prepare for her peripheral participation in CS.

Reflection. Both reflection and reflective practices are considered a crucial dimension in achieving "legitimate peripherality… in an ongoing activity (Lave and Wenger, 1991, p.117). From the analysis of Eva's interview data, I was able to capture her reflective thoughts as well as the strategy that Eva had taken subsequently, to prepare herself for peripheral participation in CS. To the researcher's question on what she did during CS, Eva, took some time to recollect and reflect before revealing thus:

> sometimes, when I report for CS, I find out that I have an order to send patient for an investigation procedure….for example if patient has Bronchial asthma I know he has to be sent for chest x-ray, as it is related to lungs. But I know I cannot simply send the patient for any procedure or scan. For example if the patient has asthma or SOB (shortness of breath) during this time, I do not know what else I have to do. So, although I want to ask questions about my patient, like the staff nurses would, I was just quiet...in the beginning of the semester, during CS, sometimes I completely "turn off" because of the rule "not to interrupt." I never asked questions, never asked something I did not understand. But now I am better prepared. I know that I must be an active listener, and a silent listener and participate as well.
>
> (P.obs.Int.Eva. lines114-123)

The analysis revealed that in the beginning of her peripheral participation in CS, Eva had sometimes found herself in a state of dilemma: i.e. whether to "remain silent" when she had pressing queries about her would-be patient's condition or to interrupt the flow of CS, as the experts would do when they had queries. Eva admits that in the beginning, when she was in this state and did not understand something, she would, "*completely turn off.*" As is clear from the excerpt, Eva, through reflection, had subsequently learnt to behave differently.

A self-initiated turning point is noted when she declares that she will have to be, "an active but silent listener and participate as well." Mann, Gordon, and MacLeod

(2009) claim that an awareness of a need or disruption in usual practice activates reflective practice. This could be a probable explanation for the sudden change in Eva's perspective. Eva, as a novice, has become aware of her legitimate peripherality and perhaps the learning potential of CS.

As Lave and Wenger point out that, "…this flow of reflective moments is organized around trajectories of participation," (p. 54). Maclean (2006) points out that reflection involves thinking about and critically analysing one's experiences. The analysis shows Eva turning critical of her own actions of her earlier peripheral participation in relation to her learning needs. This was enabled as her reflective skills came into play. This finding affirms the notion that reflective practice is a means, "to develop self-directed learning which enables learners to make a conscious attempt to learn from what was happening and identify their learning needs" (Johns, 2002, p. 118). .

A number of performance strategies taken by some the novices including Eva, for participating in the practices of their CoP, is discussed in the following section.

Formulating individual performance strategies. This section on formulating individual strategies builds on the previous section. As the novices began to prepare themselves to participate in the core activities of their CoP, the analysis shows that they also seemed to have developed awareness on the need to formulate performance strategies for interpreting the PCN and for interactions. Data to analyse the performance strategies employed by the participants were obtained from field notes and interview data. Due to space constraints, I present strategies employed by Rul and Eva to illustrate the fact that each person evolves differently with different situations.

Construction of mind maps. Findings from an earlier data source (see excerpt from Rul's experience) had illustrated that Rul's engagement and participation in CS

proceeds later than it did with other participants (e.g., Eva's). However, the analysis of data from interviews and documents revealed that Rul had subsequently devised a note taking strategy to cope with his needs, which is discussed further in this segment. Rul explains the strategy that he used to make sense of the talk of the experts during CS as thus:

> when the staff nurse talks about the disease of the patient, I don't take down everything. I only listen for the procedures that I have to do for my patients...for example if I hear the patient has X disease and she is on insulin 6 units tds then I take note of this because it is my job and I can give parentheral medication. For example if she says, "the patient has bedsore dressing"; I won't jot down this because I don't have to do dressing as a first year student...
> (P.Obs.IntRul.line 128-137)

The analysis shows Rul making a concerted effort to "listen more carefully," indicating that the novice had actually begun to take an active part in CS. This development is probably due to the complex nursing tasks that he has to carry out and the realisation that he will need adequate and accurate data to perform safe procedures. Rul's initial actions of listening and retrieving only selective information from the talk of the expert staff nurses and his formation of a sketchy note taking strategy implied that he had begun to use his "periherality" not as an "observational look out post" (Lave & Wenger, 1991, p.95).

Rul further informs:

> after I have taken down relevant information /procedures I will draw little red boxes besides the tasks I have to do. This colour will alert me what I have to do and once I finish one task I will tick it [the box]. I do this for the Vital Signs I have to take, the Oral Medication and the parenteral medication that I have to serve, turning bedridden patients
> (P.Obs.Int.Rul.line.140-144)

The analysis reveals that Rul had begun to slot in the relevant information obtained from the CS into a lined paper from a note book, with the names of his patients. Rul says he would draw little boxes next to the list of procedures that he, as

a year-one student, had to do during clinical practice. The boxes served to remind him of the tasks that he had to do, for each of his patients (refer to Fig. 4.3 for a sample of Rul's mind map).

A significant finding that emerged from a document analysis of Rul's notes illustrate they are products of his listening and therefore visible evidence of the invisible sense making processes that takes place during listening. This action revealed that Rul at this juncture was beginning to develop a more organised system of note taking to process the information in contrast with his initial days of participation in CS. This mind-mapping strategy also suggested Rul is aware for the need to integrate information in order to develop his 'patient script' that will eventually help him interpret the PCN of his patient.

In fact, Rul's use of a "concept map of note taking rather in the form of a linear text" (Moon, 2008, p. 156) reveals that he had developed an ability to distinguish the different aspects of the talk and represent it in a discernible way. This spoken text had served as "sign posts in the text to build meaning in relation to the purpose of reading" (Moon, 2008). Through this ability, the notes that he had extracted during CS appeared to have facilitated retrospectively the sense making of his earlier reading of the PCN. This new awareness that his peripheral participation during CS could help him with the sense making process of the texts in the PCN suggests the self-initiated steps taken by Rul to move into the LPP of his CoP. Significantly, the multimodal text created by Rul serves to illustrate the notion of the "evolving perspectives of the novice's learning trajectories as well as their developing identities and forms of membership" (Lave & Wenger, 1991, p. 36).

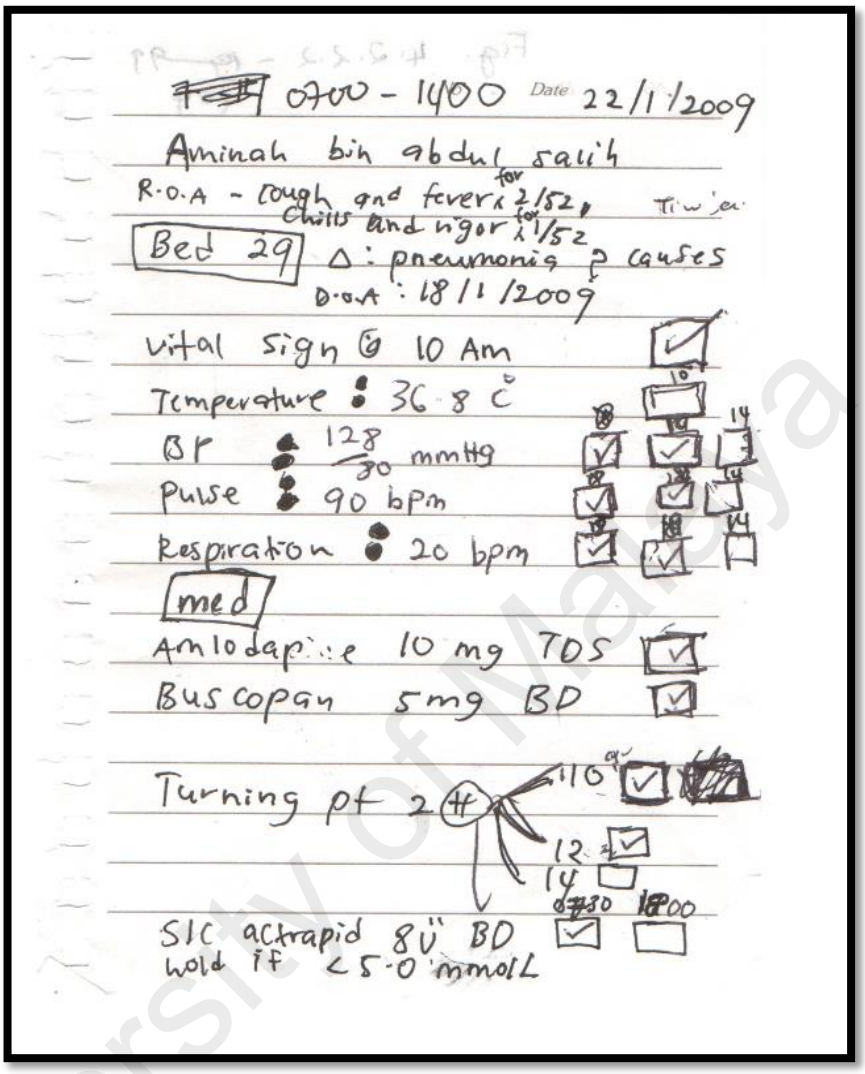

Figure 4.3. Sample of Rul's mind map.

Similarly, Eva too appeared to have employed a number of performance strategies to help her make sense of varied data from the PCN and perform the varied nursing tasks for her patients. Two of her performance strategies are discussed next.

Listening to talk around the text types repeatedly. Hyland (2007) asserts that when members of a community realize that they have to read and interpret similar texts, they would draw on their repeated experiences of the text types in order to identify similarities found in texts. Although Eva was still not a full-fledged member of the community, her peripheral participation in CS at a surgical ward appears to have

sensitized her to the specific ways of using language. Her strategy for performance was identified from an analysis of her interview data. She ascribes her new found motivation as well as the trajectory of activity in her learning, to her peripheral participation in CS, in a surgical ward as the following interview data suggests:

> my initial fear of clinical practice became less frightening…because terminologies like "performed skin graft" or "dressing for skin graft" were used over and over again. Being in the surgical ward helped me understand and differentiate between one form [text] from another and plan my nursing care. I found the CS very useful especially when the staff nurses read and discuss for example when the graft was done and when the dressing should be done and how it should be done. Then when I look into the PCN, again it becomes easier to understand procedures that I should do….
>
> (Int P.obs Eva lines28-34)

Eva's reflections revealed specifically how she prepared herself to negotiate the process of interpreting the PCN. She reveals that listening to the "discussions" of the expert nurses during CS, had helped her sense making process of the different texts as she reread them subsequently. She attributes this ease in sense making to the repeated use of language specific to surgical ward, by the members of the CoP, with which she had become familiar. Lave and Wenger (1991) contend that talk "inside a shared practice" fulfils specific functions such as "engaging, focusing … and supporting communal forms of memory," (p. 108). They also emphasise that the purpose of peripheral participation was not so much for the novices to "learn from the talk as much as to learn to talk." The findings, however, revealed that both forms of talk facilitated Eva's peripheral participation as well as her reading of the PCN and the interpretive process.

The analysis suggests that Eva had learned from the talk, updates on the progress of her patients. The talk was also a way for Eva to make sense of the discourse of the practice as she read and interpreted the text in the PCN. She had apparently used the "cues" provided by the writers of the texts such as, "performed," with the

medical terminology "skin graft" to make sense of her patient's health status, medical updates and care plans. The analysis implied that the interpretive process was facilitated by listening to the spoken versions of such terms in the talk that took place during CS.

Darscia (2008) refers to the cues as "verbal indications" (p. 241). Eva's shift toward using linguistic, textual and contextual clues to help her interpret the texts when she rereads them, were also indicative of a shift toward the core activities experts perform and her legitimate peripheral participation. The finding indicates that for Eva, the talks and her participation in the context of the surgical ward had complemented her sense making of the texts of the PCN that she had read.

The findings revealed that the participants such as Yaaz, Rul, Ri and Eva had over some time realised that their "non- participation" during CS offered varied benefits. In Yaaz, the dawning of this awareness began almost immediately as she "participated from the peripheries" during CS. However, this realization in Rul and Eva took place after several "embarrassing" episodes when they could not answer queries from members of their CoP and the overlapping CoPs as illustrated in this excerpt from Eva:

> When I cannot answer my tutor, doctors, staff nurse's questions …the whole day I will be wondering, "Why didn't I at least listen to the CS, I could have given an answer instead of saying, 'I don't know' and feel really stupid."
>
> (Int Eva line.39-44)

The analysis revealed that Eva had in the initial stage of CS, "turn [ed] off," and had even considered at some point during their CS to go against the "unwritten rule" not to interrupt the verbal interactions between the experts. However as she began to reflect on the practice of this literacy event, she became aware that the role of a peripheral participant was facilitating her in making sense of data contained in

the multiple texts in the PCN. More importantly this finding revealed that the motivation to participate actively in CS developed as the participants realised the core activities that they were compelled to carry out after CS such as being able to "answer" questions from members of the various Communities of Practice at the workplace.

Eva went on to reveal the strategy she had adopted subsequently after CS at her new posting at a Medical ward that helped her reading of the PCN. An excerpt from Eva's interview shows the deliberate steps she had taken in the initial point of her participation: such as: listening to the talk between the experts, taking down notes and memorising this text that she had produced based on the, "different aspects of information of care" (line 60) regarding her patients. Eva revealed that she had begun to train herself to listen to the talk during CS. By being receptive, Eva claimed she was able to retrieve data on her patients and jot them down in point form, which Eva then transferred into her note book following CS. The following excerpt from Eva interview reveals the subsequent actions that she employed:

> I go over the points that I have taken till I can remember them. Then I try to read the PCN of my patients after the CS, then I try to recollect the different aspects of information on care about my patient I got from my tutor and discussions with my partner. I then I combine them together so that I can now plan care and implement my care for my patient.
>
> (P.Obs.IntEvaline 48-54)

The finding that emerged shows Eva was beginning to draw on all available resources: data from the verbal interactions with her fellow course mates, her tutor and her own note taking from CS, as a means to facilitate her reading of the PCN. This finding was significant as it also shows the construction of Eva's identity process. Eva, seems to be no longer a passive learner. As Billett (2004) points out, learning that occurs "through regulation of participation in work" is not dependent on situation alone (p. 319). Billett informs there is also what he calls the "dimension of individual agency and intentionalities" (p. 319) that play a part. Eva, like Rul and the other participants seemed

to be aware that they were not interpreting the Case Notes for themselves but it is a community-oriented goal, a goal of nursing to ensure continuity of patient care. The findings also demonstrated that individual novices' agency and intentionality also shaped their engagement and learning derived from it in the workplace. One other likely reason for this awareness is that they could have begun to see themselves as part of the web of interconnected communities of practice at the workplace.

The analysis also reveals insights into Eva's innermost thoughts to approximate a viable interpretation of data from the PCN. This, she believed would enable her to, "answer questions asked by anyone in the wards- doctors, staff nurses and sisters…"(Int Eva.line 39). The analysis further implied that not only were novices like Eva fast becoming aware of the overlapping interconnected communities of practice but also the fact that all these groups, have "texts and practice in common" as Barton (1984) contends. The next segment illustrates another performance strategy adopted by Eva following her participation in CS.

Matching oral input to individual agency. Eva undertakes the next performance strategy in response to the oral input she had received following CS, to facilitate her reading of the PCN. This strategy in fact builds on the strategy that was discussed in the previous section (i.e., listening to talk around the text types repeatedly). Eva's second move comprised reading silently the relevant texts in the PCN and trying to get meaning out of it, without help from others, as implied in my field notes. I noted Eva:

> reading information from selected texts of the Case Notes. She appears not sure of something…. She leaves the PCN…walks to the utility room, pulls out a specific tray from the medication trolley. She takes out medication. She writes the name of the medication on a stack of loosely fastened paper...She puts back the medication…Eva goes back to reading the PCN and continues to jot data…as she reads the PCN... She walks again to the Utility Room…She is verifying, cross checking information from the PCN with her notes and names of medication on labels….
>
> (Obs. Eva. lines 907-913)

Although Eva was reading silently, the reading itself seemed to be an action directed reading. Her actions of cross checking, verifying the information from the texts in the PCN and looking for confirmation through other semiotic resources such as labels of medication, revealed themselves in meaningful actions. Eva's actions implied that the interactions and the interpretive actions of the experts during CS had enabled her to reread the multiple text of the PCN.

This finding was also consistent with data obtained from observation field notes on Yaaz and Rul. As a means to facilitate her sense making of the PCN, Eva revealed that she embarked on next move which comprised of a number of steps such as her going back to the PCN, reading the relevant texts in the PCN on her own, juxtaposing this new text of information that she had internalised with that from her reading of the PCN. The findings also revealed evidence of the strategy further taken by Eva to facilitate sense making of her reading of the PCN. Eva combines the text that she had internalised from the talk and interactions during CS with the texts she had currently from the PCN and other semiotic resources such as labels of medication, to form a whole picture of her reading.

The analysis implied that Eva, like Rul, was aware that she had to read multiple texts in order to arrive at a coherent understanding of the whole set of documents in the PCN. Additionally, these findings indicated that the novices were beginning to actively participate in CS as a means to an end: to facilitate their sense making of the texts in the PCN. In the case of Rul, he seemed to have learned to use CS to make sense of the large amounts of data in the PCN to complete the missing pieces in his "puzzle" about his patients. Nevertheless, the analysis suggests that Rul, was becoming increasingly conscious that he could tap on CS to help in making the sense of the multiple texts of the PCN, his legitimate periphery. However, this trajectory of

learning is not monolithic as participants vary. The next section provides evidence of the variance.

Non-attendance an opportunity cost. An initial strategy most of the participants used to interpret the texts in the PCN, in view of some of the subtle constraints placed on them as peripheral participators, was attentive listening. However an anomaly captured in the researcher's observation field notes during CS involving Ri, was worth noting. Ri, on two different occasions had adopted different stances during CS. Two excerpts obtained from the researcher's field notes in the context of a surgical ward where this anomaly was noted is provided:

> It is close to 2pm. Ri and his peers are standing at the back, listening in the midst of the buzz of activities to the experts. Ri is jotting notes…Data is read verbatim in English from the PCN. The outgoing Staff nurse verbally explains subjective information on each of their patients e.g. on surgical procedures scheduled for the patient in the Malay language. The exchange of information is terse….
>
> (Excerpt 1Obs.Ri.Line 3445-3451)

> A doctor comes by and Ri does something unexpectedly. Ri takes a few steps away from station where the CS is taking place, unnoticed and stops the doctor in his track before he enters a room where his patient is. Ri asks the doctor abruptly but politely in his English, "*May I know what is "severe mitrial aortic*." The doctor a young medical officer appears to be slightly taken back but at the same time keen on disseminating the information sought by Ri. The doctor takes pain to explain and then asks Ri to follow him to the patient…Dr uses the metaphor of water flowing from a tap to explain the condition…Ri seems contented with the explanation and heads back to the station by which time CS has ended at Ri's station.
>
> (Exerpt 2 Obs Ri lines.3452-3461)

The analysis shows that midway through CS, Ri needed to know what exactly "*severe mitrial aortic*," (Excerpt 2) was, a condition his patient was suffering from. He threw caution to the winds when he opted to abandon his peripheral position and approach another member of the workplace community. The doctor's action suggests he was willing to go the extra mile to provide the novice with the knowledge and information he required. This analysis implied that Ri had yet to develop the realisation

that of the other participants have demonstrated in relation to the significance of CS. This finding was verified through another episode of Ri's participation in CS as captured in the following field notes:

> At Ri's station, CS has started. Year- one students appear to be passively listening to the verbal interactions between the staff nurses. Ri is busy jotting down notes into his pocket sized notebook. At one point, unnoticed by anyone except me, Ri moves a few steps away from the CS station, pulls out a chair and sits down. He takes a patient's PCN folder from the top of a rack… and scans for information…. He adds the information to his own notes. The other student nurses do not seem to do this, at least while CS is going on. CS is over soon. They get down to work. Ri and his peers go to their respective cubicle.
> (Obs Ri lines 3528-3542)

This finding was significant in the context of this study in that I was investigating what interpretation means and what factors aid in facilitating the learning of interpretive skills. The findings revealed Ri's learning was unlike that of Rul, Yaaz, Arthi, or Eva. The data show that Ri does not place importance on getting the whole picture of his assigned patients from CS. The analysis of his participation in an earlier episode of CS saw him as an inattentive listener. Hence, he did not pay attention to the interpretive talk of the experts. He would rather excerpt verbatim data from texts than listen to the spoken interactions of the expert staff nurses.

Both the excerpts of CS involving Ri shows that he had left literally his post and therefore his legitimate peripheral participation. Insights from a group interview (Ri/Yaaz.lines71-74) implied he appeared to be hung up on knowing an individual phrase or term. In this sense Ri appears to be cautious. However, by abruptly leaving CS, on that particular day, Ri could have been deprived of crucial information on the continuity of care of his patients. By consulting the doctor directly, he may know the meaning of the phrase, "*severe mitrial aortic*," but as Ri himself admits, he has missed

among others aspects such as the aural presentation of the staff nurses, the language of delivery in sum--the "specialist knowledge framework" (Dressen, 2008, p. 234).

In an interview, Ri in retrospect admitted that on those occasions he had left CS station he was the "loser" (Int.Ri &Yaaz line 71) as he "sometimes lost focus." On those particular days mentioned, Ri revealed he "was worried about Passing Report to his tutor" as he did not know, "the definition of the condition of his patient". Ri believed if he knew the meaning of words, he would, "know more about the disease …could explain to my [his] tutor better…." (Grp.Int.Ri Lines72-73).

By missing other crucial interpretive information from the staff nurses, Ri's arriving at uncovering the intended meaning of the specialist data in the PCN, as a novice reader could be challenging. This impulsive act could jeopardize his textual understanding and interpretation of data in the PCN on his assigned patients for the day. An analysis of interview data with Arthi is drawn to illustrate how crucial CS is to the novice. Arthi reveals:

> Daily I have to Pass Report verbally to my tutor at the beginning of my shift about my patient's condition using the information from the case notes of patient… My tutor wanted details and I give just what is current …but did not relate it with old notes containing previous planning, medication, procedures done etc. I did not understand doctors' orders in the PCN…the short forms they used ...but, I found out that listening to the staff nurses in CS can help me with many of the details about my patients….
>
> (Int Arthi.lines 46-54)

The analysis besides summing up the variables that impeded Arthi's process of making sense of the PCN also indicated that CS was a repetitive social practice for Arthi and for the other participants. This analysis strengthens the earlier findings that the novices had much to gain through their peripheral participation during CS sessions by just listening and observing attentively. The activities of expert staff nurses revealed they were all goal directed in accordance to the specific demands of the workplace and the context (Billett, 1996). A finding that was constant in the analysis

of data from the excerpts in this section implied that the participants looked forward to CS as they knew their peripheral participation in this event allowed them, in Yaaz's words, to "learn about patients' behaviour, procedures that need be done, Dr's orders in the case notes and try to use their style and language," (Grp.Int Ri & Yaaz line 43-45).

One presupposition for this deepening of awareness could be that the novices' peripheral participation in CS, observing the actions of the experts daily and listening to their talk around the PCN, was beginning to have an effect on some of the participants. The repetitiveness of the practice during CS seemed to have become input to their evolving sense of the learning curriculum. Initially, it seemed the participants were only physically present in CS. However, the participants had revealed, they became mentally involved only when they realized what they were compelled to do soon after CS ends, which is discussed in the next section.

Guided participation. In Lave and Wenger's (1991) theory of Situated Learning (LPP), increasing the participation of learners, at multiple levels in their CoP, forms a key perspective of learning. Learning is posited as a two way interaction between novices and the experts. In this specific context, that part of guided participation involves the co-construction of a learning curriculum by the experts in interactions with the novices. The next section discusses specifics of developing the learning curriculum.

Developing a learning curriculum. A learning curriculum is laid out by the practice of the community. It basically refers to the situated opportunities for learning and for the, "improvisational development of a new practice" (Lave & Wenger, 1998, p. 97). In didactic situations, the learning curriculum develops through participation in a specific practice of a community prompted by the pedagogical efforts of the experts,

in close reference to the target practice. This perspective usually provides the learning goals for peripheral participants (Lave & Wenger, 1991). Similarly, Billett (1996) too, asserts that activities that learners involve in are not ad hoc in nature but they should be seen as components that constitute the learning curriculum.

The findings thus far also affirm that some of the participants had demonstrated the awareness that they were responsible for their own trajectories in learning. Subsequently, they had begun to utilise various resources in didactic situations of CS, to increase their participation in the target practice. This was further illustrated when they began to formulate *individual performance strategies*, again by drawing on the situated opportunities offered by the learning curriculum. This was in anticipation of their participation in Passing Report that was awaiting them soon after CS.

Involvement in institutional scaffolds: passing report. As was clear in the data on CS, the notion of literacy exceeds its usual association with reading: it includes both listening and speaking, for instance. However, there was a realisation among most of the participants that interpreting PCN was a crucial presupposition not only in providing nursing care to patients but also for partaking in Passing Report. CS had evolved into a larger literacy event -- Passing Report (PR). PR appeared to be part of the pedagogical design institutionalised by the wisdom of the training institution and plan to add a pedagogical element. This is part of the routine of only the novices, whereby they are required to present to their individual tutors crucial information on their patients' health status. The findings that emerged illustrates that PR appears to be a pedagogical device that would enable their tutors to find out if the novice has correctly interpreted information from all the relevant data sources, needed for the continuity of care for their patients.

Performance-developing the patient script. One trait that needs to be implanted in student nurses is the notion of arriving to as accurate a "patient script" as possible. By "patient script" what is meant is the constant evolving image of the patient that health professionals should constantly work towards.

Based on a telephone interview with the principal of the nursing college, Ms Sharifah, it was revealed that PR is:

> also a form of assessment to find out whether novices have observed, read, extracted and interpreted correct data from the Case Notes. It will also show the tutors if the novices had missed any crucial information either from their own readings of the PCN or from the verbal report...during CS.
>
> (Ms Sharifah, PC, May, 12, 2011).

To gain more insights on PR, and the patient script that was being developed, data from Ame's tutor, Ms Zai, was also drawn upon. Ms Zai revealed:

> Year-one students do not learn about PR; it is not a part of their classroom curriculum. They have to learn by imitation, observing others, once they are in the wards. They need to go beyond their scope of providing basic care and get involved and perform certain nursing tasks. However this can be a problem if they do not have a rationale for an action nor know the consequences of an action. If anything happens to patients, it becomes my responsibility… Hence I am very serious and very critical when my students Pass Report to me.
>
> (Ms Zai, PC, 2012, March 11)

The analysis suggests that PR is a crucial literacy event in the life of year one student nurses to which they do not have any prior exposure in the classroom. They are required to carry out PR in the actual reality of their workplace before their equally tensed tutors on a one to one basis. The data from the tutor affirms that PR, is a compulsory step that would inform the tutors if the data collected and interpreted by the novices is relevant to their patients' health status.

As evidence of what might happen during PR, the next section presents interview excerpts from two experts and two separate excerpts from my field notes observation of two participants: Ame and Rul. They attempted at forming 'patient scripts' using the learning potential inherent in different people and different

situations. The data shows that one important feature of the learners is the predisposition to know the value they place on obtaining an accurate patient script. An excerpt from my field notes captured Ame's preparation for her first PR, following her attendance in CS is presented next. My notes read:

> Ame's first clinical posting is at the surgical ward. She had just diligently listened and observed the actions of the experts during CS, closely adhering to the unwritten law not to interrupt the flow [of] events. As soon as the event ends, Ame gets hold of the folder of her patients. She is busy cross comparing her own notes with that of the PCN. She is also busy entering adding new notes both in BM and in English into her pocket sized notebook... Her tutor enters promptly and summons Ame to the bedside of her patient
>
> (Obs. Ame lines 40-49)

The data shows that Ame has excerpted data from the spoken interactions of the experts based on the PCN during CS. She also refers to the PCN to further verify and complement the text that she is constructing. As soon as CS was over at Ame's station; her strict and meticulous tutor, Ms Zai was already in the cubicle. Ame immediately moves to the bedside of one of her assigned patients at bed 53 to Pass Report. My field notes noted the following:

> Ame reads out an abbreviation "…TRO…" Tutor interrupts and asks Ame in English, "TRO, what is it?" Ame looks unsure but goes on with her reporting… "…patient is here for colonoscopy and has cancer of the colon, and patient is on TPN. The TPN is through the IV drip". She goes on, "patient *makan* [eats, translation added] through TPN." Tutor interrupts at this point and asks, "What is TPN, then"? Ame and her audience comprising her peers are hesitant in giving a response. Prompting, her tutor to show them the gadget. She explains, "This is the TPN pointing to one of the gadgets next to patient's bed. They move closer … to the patient's bed. Tutor explains how to read the meter. She points to the bag containing nutrients for the patient, "This patient's Total Parentheral Nutrition or TPN or the total nutrition that goes into the body is read by this Trumo Machine…".. You can see the TPN is given through IV infusion. So, you cannot "makan" [eat] TPN, Ame." The pun eases the tension. As the teaching goes on, the patient appears uncomfortable and requests for a change of the colostomy bag. The teaching stops.
>
> (Obs.Ame. Lines 99-111)

The analysis shows that due to the specifics of PR, Ame, like her peers, had mentally assigned great significance to this literacy event. Importantly, the novices were aware PR was a form of assessment to find out whether they have excerpted correct and crucial information to ensure continuity of patient care. Hence most of the participants revealed during interviews on observations, that they approached PR with trepidation and anxiety.

The findings from Ame's PR to her tutor illustrated the significance of this event in the training of the novice. Specifically it provided evidence of the deepening of Ame's sense making and her evolving 'patient script" via this literacy event. The analysis revealed evidence of how the sense making of the texts that Ame had read earlier on was further facilitated through another source: teaching and learning in the actual workplace context. The analysis also shows that during PR, although Ame was able to communicate some crucial information regarding her patient at bed 53, her meaning making of data from the texts was incomplete. For instance she had mouthed without understanding some of the abbreviations, for example TPN.

The findings revealed that the tutor had made use of the PR as an occasion for teaching the meaning of the short forms as well as how to read the Trumo machine. If the novices -- Ame and the others -- learn this lesson well, their understanding of the PCN and the language presupposed as knowledge among experts-health care professionals will increase. Undoubtedly, CS had equipped Ame with details regarding her patient's history. This was implied during the interaction between Ame and her tutor. In response to her tutor's question on the source of her information regarding her patient at bed 53, Ame's response was:

> I got some of the information from the PCN, I did not read every page, but I had listened to the CS by the staff nurses in this morning. I got most of the information on from their talk…
>
> (Int. Ame Lines.78-79)

The analysis of Ame's PR also revealed that the report communicated during CS had not been understood in every detail. For instance it had not fleshed out the meanings of some common abbreviations possibly on the grounds of mutual knowledge among experts. Terminology was assumed to be known among habitual users of the language of medicine. But to the novice such language was still new. However, knowing what these abbreviations meant in the particular context was crucial in carrying out her nursing tasks. Specifically, one of Ame's peripheral nursing tasks was to chart the Input and Output Chart in the PCN which includes a record of the 24 hour fluid and nutrient intake and output record of the particular patient.

The abbreviation "TRO," which was also mentioned by Eva earlier on is a commonly used abbreviation among the members of the overlapping discourse communities in this clinical setting. Not knowing what the abbreviation TRO stands for had also caused a breakdown in Eva's meaning making process. Likewise Ame too, did not know the abbreviations of "TRO" and "TPN." In this sense, the interactions between the tutor and the novice, the context, the tangible and visual experience of reading the Trumo Machine facilitated by the tutor had in a specific way assisted Ame in interpreting the texts more coherently, besides enhancing her legitimate peripheral participation in providing care for her patients.

In this context, interpretation was facilitated besides the written texts of the PCN, by other modes of meaning making, "each with its specific affordances". (Barton & Tusting, 2005, p. 22). Barton and Tusting (2005) assert that making sense of a new practice, usually involves unfamiliar abbreviations and semiotic resources, as Ame's reading of the Trumo Machine highlights. However, the findings from this episode demonstrated how unfamiliar abbreviations and other semiotic resources at the workplace were learned non- formally through an everyday practice, as it happens.

Thus, it can be inferred that participation in PR had advanced Ame's sense making. Although the novices had claimed that CS had helped them with meaning making of the texts, this analysis provided evidence that there were still gaps in their interpretation. The interactions during PR, between tutor and novice served as a "resource for increasing participation" (Lave & Wenger, 1991, p. 91). Subsequently, it helped to fill the gaps in the patient script that the novice is building, before she can get on with the nursing tasks assigned to her for the day. Thus, pre-empting potential mistakes and extending the student nurses' knowledge of nursing skills and also their familiarity with common communication seems to be the main thrust of the PR session.

Learner initiative and agency. Another perspective of the potential of PR and the development of the novices' "patient script" was discovered in Rul's PR. However, Rul's PR did not occur soon after his participation in CS as the following excerpt would show. The excerpt from my field notes reads:

> Rul puts aside the Case notes of his patient an elderly Chinese lady, on the over- bed trolley. Rul, confidently begins eliciting data from both the patient and caregiver. He asks for her name, number of children, her job, her schooling and her feelings. The elderly patient gives feeble monosyllabic answers mostly, her reason for admission; her hobby…except when, Rul asks, "…if she likes being at home or in the hospital?" The patient replies wearily, "saya hanya mahu balik bila mata saya tutup" [translation added: I only want to go back when my eyes are closed" in Malay]. Rul, appears to be taken aback and does not know what to make of it. Rul continues to take down the data deftly into his clinical experience book.
>
> (Obs.Rul.lines4018 -4027)

Firstly, the analysis shows one means Rul used to build his "patient script". Rul realises the importance of building the social dimension in the well-being of his patient. So, while waiting for his tutor, Rul succeeds in building rapport with his assigned patient for the day and her daughter. The data reveals that Rul is in the process of collecting various types of data, in addition to the data he has obtained from rereading the PCN and presumably from his attendance in CS. He perhaps recognises

the fact that building an accurate "patient script" involves more than the information contained in the texts from the PCN. Secondly, while this was happening, another routine event; Clinical teaching, was set to take place in the same cubicle where Rul was seeing the patient. Rul gets drawn into the pedagogic design of another community of practice in the workplace, as he realises the opportunities inherent in Clinical teaching to facilitate his learning, as captured in this excerpt from my field notes:

> Rul sees a group of doctors, houseman with their consultant heading toward his patient. Rul stops talking to his patient and makes room for this group. He moves a few steps and stands behind his patient's bed, close to the wall. Next to him are the consultant, several doctors, houseman, the ward sister, a few staff nurses, and a physiotherapist, who have come to see "their" patient. The consultant takes hold of the Case Notes and goes through some of the texts.
>
> (Obs.Rul lines 4037-4039)

Clinical teaching or teaching at the bedside of patients is a form of experiential learning. Clinical teaching aims at developing in doctors and students of medicine, a way of thinking and analysing clinical problems. The analysis illustrates that Clinical teaching is a form of pedagogical device in this teaching hospital but the target of the pedagogy is Medical officers and Medical students by their professors. It did not seem to involve student nurses. The data however, reveals how different actions and different learner initiatives helped novices such as Rul improve their "patient script," and interpretive efforts.

The analysis revealed that Clinical teaching involves a multidisciplinary approach in managing patients and is headed by the consultant specialising in a particular area in medicine. While the analysis also illustrates that Rul's 'patient' and the PCN is a "shared resource" of the overlapping communities in a clinical setting, it also gives a glimpse of the hierarchy of power structure of the overlapping communities at the workplace. This is evident when the novice abruptly stops his

interview and moves back from his legitimate periphery to make way for the consultant and the other members of his team.

However, the analysis illustrates Rul does not bow out in deference from the existing hierarchies within the ward. Rul perceives in the situation a potential to improve his own "patient script" through listening in to a group consisting of a consultant educating another group of trainees (doctors and trainee doctors), a multilevel teaching which also included: postgraduate students, interns and even staff nurses.

Clinical teaching appeared to have the potential to offer a lens to investigate the interpretive process of the PCN by its users and all evidence clearly indicates it is also a literacy event. Mainly because Clinical teaching too, involved interrogating the texts of the PCN along with other semiotic modes such as- observing how patients respond to treatment, connecting symptoms and signs of new patients with those they have already seen in the past and with what they have read in textbooks and in Case Notes. In other words, the *patient* script to the *illness* script, as the following data from the field notes show:

> The consultant engages in talk in a Chinese dialect with the patient, as he refers to the PCN. In the process he manages to elicit information which he translates into English for the benefit of those gathered specifically the doctors. One among the doctors presents the history of illness of the patient while the others listen intently. The staff nurses take down notes and engage in their own "talk" occasionally. In between, light banter ensues between the specialist and patient. Pertinent questions are directed toward doctors, housemen and even the ward sister….While all this is going on, Rul inches closer and slouches over a trolley and takes down notes' indicating that he is actually listening to all that is going on.
>
> (Obs.Rul lines.3977-3995)

The following excerpt from field notes reveals evidence of the educative effect of Clinical teaching on Rul:

> the consultant shifts his focus from the patient to his doctors. On site learning is taking place. Rul stops writing and takes a step even closer to the doctors.

> He is not included in the teaching but Rul seems to be using the opportunity. He is listening…. The consultant teaches his officers how to recognise signs and symptoms of the disease using…. Houseman and doctors appear tense but alert as rapid-fire questions are directed at them. Responses of students and doctors are interrogated, analysed and linked to what they have read in textbooks and in Case Notes and patients' visible signs. The sister is also consulted on the nursing care of patients. The houseman, who has been tasked to writes out new treatment orders of the consultant and …of the patient into the Case Notes, does his job diligently.
>
> (Obs. Rul lines 4046-4056)

The findings revealed a number of insights into Rul's learning in his unintended attendance in a Clinical teaching event meant mainly for doctors and housemen. The findings show that Rul, is, "*not included in the teaching*". Although, Rul appears to be intimidated by the sudden appearance and the taking over of his patient by the Clinical teaching team, but seeing the potential for learning, he, then, takes a step closer and enters into the circle of learners. This is as soon as he becomes aware of the educative value of Clinical Teaching in facilitating the meaning making of the texts types in the PCN.

The activities adopted by Rul illustrates the learner agency and initiatives that has come to play in facilitating his learning (Waring, 2011). He takes down notes which he believes will lead to improving the quality of his "patient script" that was emerging in his mind as a result of his participation in the CS and his reading. The questions of the consultant now serve as triggers to enable not only doctors, interns but also Rul, in facilitating interpretation of objective and data abbreviated in the PCN with "symptoms and signs."

A chance informal interview with Dr Vela, a specialist, verified the learning potential and the importance of observing and listening to experts during Clinical Teaching for the enculturation of learner. He asserts:

> the learning that doctors and students get from making a diagnosis and observing patients respond to treatment during Clinical teaching, enables them to create what can be called "patient scripts" in their minds. These patient scripts enable doctors and students to connect the symptoms and signs of new

> patients with those they have already seen in the past (patient script to patient script) and with what they have read in textbooks and in Case Notes (patient script to illness script)…
>
> (Dr Vela. PC, Jan, 16, 2013)

Rul seem to have spurred to move back into his legitimate periphery as he recognised the educative value of CT. He decides to listen to the interactive and interpretive spoken discourse of the experts of the overlapping communities of practice at his workplace. This move taken by Rul is indicative of his increasing engagement in the learning activities of the community. In wanting to affiliate himself with the expert practices of the consultant, Rul is not just contented with being at the legitimate peripheries. A supposition is, he is aiming to move toward the 'centripetal participation in the learning curriculum of the ambient community" of the experts, as Lave and Wenger (1991, p. 100) describe about learning at the workplace.

More significantly, another supposition is as a novice, Rul also had the opportunity to see the writers and the composers of the text types in the PCN. This is assumed to have sensitised him to aspects of professional knowledge, which he realises is located within the overlapping communities of practice at the workplace.

The next set of data obtained from Rul's Passing Report (PR) on his patient's progress soon after his participation in Clinical teaching would show some dimensions of his learning to interpret the data from the PCN.

My field notes presents data from Rul's PR to his tutor as thus:

> Rul begins his PR by giving his patient's biographical and demographic details. He reports confidently, "no smoking, no alcohol, hobby is gardening…" Tutor listens quietly allowing Rul to present, then begins her probing questions. Tutor asks him: "Has the patient been operated or not?" Rul replies, "No operations, only peritoneum tapping, according to the notes and according to the consultant just now during clinical teaching...." "Good," says tutor, "you know the difference between a diagnostic technique and an operation".
>
> (Obs. Rul. Lines 421-40126)

The findings illustrate the degree of confidence in Rul's presentation of data. It appears that this confidence in the presentation of his patient's symptoms and medical history is somehow related to his presence at the CT session. But also and perhaps more importantly – to the way his tutor elicits his information from him, from the way he is made aware of his own insights and from the support he obtains from the tutor. Rul's earlier sources of data --his reading of the PCN on his own, participation in CS, his brief rereading of the Case notes, soon after and his questioning of the patient -- perhaps now appear to him as merely a receptive process of making meaning of objective data. Rul sees the need for proactive learning.

Further evidence of the interactive and interpretive actions between Rul and his tutor during PR that provided Rul insights into his meaning making process of the data from the PCN is captured in this segment of the excerpt from my field notes. Rul further adds:

> the report says, peritoneum tapping was done and the secretion is straw coloured... *red*. Tutor stops him, "Rul, straw is not red in colour." Rul says, "strawberries are red', looking a little confused. Tutor goes on without any comment, "what is her previous medical history?" Rul says "surgical operation done for CA of breast…Tutor stops him and says, "That is a surgical condition not a medical condition as you said so!". Rul's confidence appears to take a dent. But regaining his composure…Rul goes on. "Thorax of patient is not symmetrical because no right breast." Tutor corrects him, "Don't say no right breast. You have to say…" Rul quickly butts in and completes the sentence by saying… "because of right mastectomy". The line of questioning goes on. Tutor questions, "what about the psychological state of the patient? As a woman, what is the mental state of a woman whose breast is removed? Did you find out?" Rul hesitantly says, "No." He then goes on "my patient has a colostomy done but I did not get the Case Notes so I asked the patient's care giver about her mother's condition... The care giver said that her mother was given the colostomy bag because she did not go to the toilet to pass bowel"…. Tutor interrupts, sounding a little annoyed when she, "what's the word, Rul if you do not go to the toilet will you be given a colostomy bag?" Rul is little embarrassed. He gets the point and says "no"....
>
> (Obs Rul lines40127-4151)

The spoken discourse between Rul and his tutor reveals some possible ways of misconstruing data. For example, when Rul relates that the secretion from peritoneum

tapping was straw coloured..., it shows he has got the correct link between an investigation procedure and an operation. However, Rul relating "straw" to "strawberries" and arriving at the colour "red" which is the colour of strawberries, is of his rationale. He gets the point that some colours are referred to by mention of some object which has this colour that he fails to get in this case. Thus he confuses the colour: straw is yellow, whereas strawberry is red. However, his tutor draws his attention to this fact when she says, "straw" it is not the short form for strawberries but is another object which is not red in colour.

The data show that the learner is not alone in the way he construes information. Rul's tutor as an expert member of the community makes visible the things he has to learn. When she points out, "CA of breast is not a medical condition but a surgical procedure", it is to make the novice aware of the tool of language that he needs for distinguishing a medical condition from a surgical condition. Similarly when she points out to Rul that no right breast equals to right mastectomy, she is teaching and sensitising him to the language of medicine.

A finding that emerged from this analysis reveals the role played by Rul's tutor, Ms Rina in trying to help Rul's entry into and participation into the CoP of his workplace. To participate in the activities of this discourse community, proficiency in the language of medicine which is in English is crucial. This requires reading in English and accurate data interpretation.

Secondly, as noted during PR, CS and in CT and in all other routine events both in nursing and medicine, the interactive and interpretive talk related to patient care is in English, specifically English related to medicine. The PCN was an important point of reference in all the instances. Hence, when engaging in the target literacy practices of their workplace, novices will have to communicate in the discourse of

their discipline with the experts in ensuring there is continuity of care of their patients. Significantly, during CS, the novices had also begun to see how the written domain of the PCN had moved into the action domain.

Essentially, CS appears to be the first significant daily routine task in the life of a nurse in clinical settings as well as that of the novice year-one participants. The participants in the study: year-one student nurses were however merely required to observe and listen quietly from the peripheries, to the expert staff nurses. Hence, they have no active role except to listen and take down notes, during CS . The CS routine roughly takes the format which is displayed in Figure 4.2.

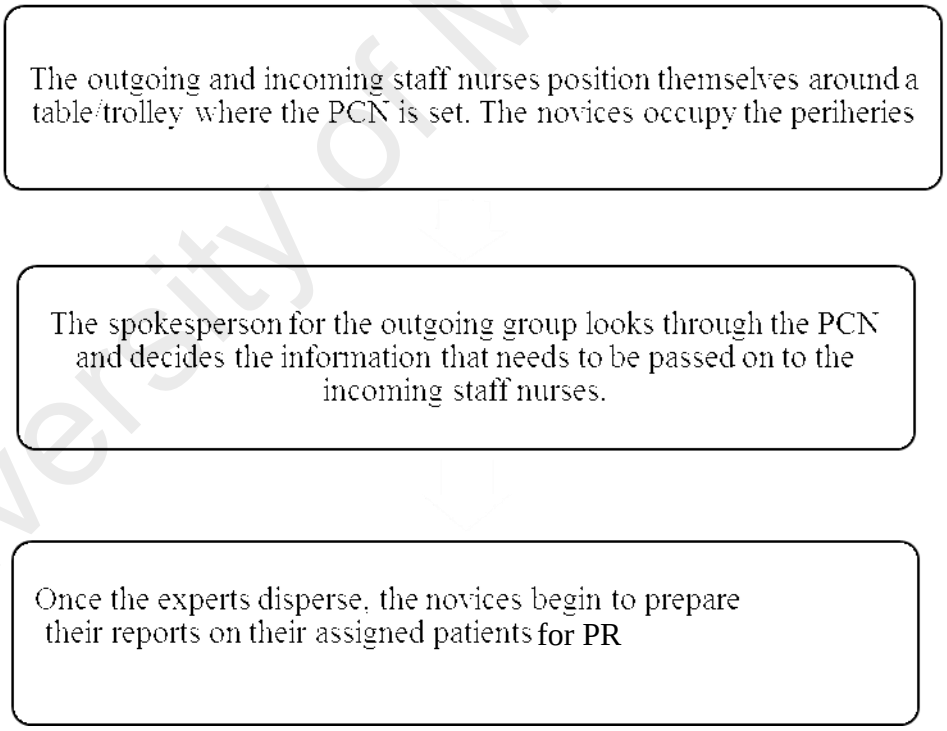

Figure 4.4. Format of CS routine.

However, the analysis revealed that the quiet and non-participatory roles of the novices changed at the end of the CS event whereby once the experts dispersed, the novices played out a similar parallel role. They quickly passed their own reports to

their respective tutors on the health status and treatment of the patients assigned to them. Hence, the "CS" routine transitioned into a larger literacy event, namely Passing Report.

This section reports the summary of findings from CS, the first of the literacy events explored that provided insights into the ways through which novice year- one student nurses interpreted the multiple texts in the PCN during their clinical practice. CS was used as the initial unit of analysis. However, the analysis revealed that CS subsequently evolved into a larger literacy event- Passing Report (PR) comprising a number of moves, in this teaching hospital. The findings revealed that both literacy events CS and PR and the incidental literacy event –Clinical Teaching (CT) that Rul had participated in, had offered the novices a way of sense making of the complex data in the PCN. A significant finding that emerged during Rul and Ame's participation in Passing Report are some instances of co-construction of knowledge between the novice and the expert tutors. The co-construction of knowledge that developed as the novice answered the questions posed by the expert during their interactions specifically appeared to have facilitated the formation of their clients' "patient script." Findings from observations also revealed the event was textually mediated and each one of the discipline specific texts carried with it expectations regarding reader proficiency. However, given the nature of the texts difficulties, the gap between the writers and the readers in relation in terms of language, and level of content knowledge, the participants had experienced various text difficulties and therefore in reading and interpreting the PCN.

In answering RQ2, I also investigated Medication Serving, a crucial nursing event, to understand how the novices learned to read and interpret the Medication Kardex. Specifically it explored the phenomenon of expert-novice interactions that

facilitated the novices' legitimate peripheral participation toward the core practices of the CoP. The next section discusses Medication Serving that provided the context to understand the phenomenon that was being investigated in this study.

Medication serving as context of participation. This section provides a detailed description of the features Medication Serving and the crucial text of the PCN that mediates the task of Medication Serving. The section begins with a description of Medication Serving, the salient parts of the Medication Kardex and its reading path. To capture the novices' learning and their moves toward gaining entry into the legitimate peripheral participation of their discourse community, a detailed analysis of my observation field notes and interviews with informants comprising participants and significant others such as nurse tutors are presented. Documents such as samples of Medication Kardex and excerpts from Case Notes that were permitted and made available by the institution were also analysed to triangulate findings from interviews and observations. Findings are discussed in relation to the themes developed from the theoretical framework of the study, namely Lave and Wenger's (1991) theory of LPP. This followed by a section on summary of findings.

Medication Serving was investigated as it provided the context to understand how the novice student nurses interpreted the MK during their clinical practice. A number of features make Medication Serving (MS) distinct from Change of Shift (CS). With CS the novices could remain passively in the periphery. It, along with the Passing Report that the Institute of Nursing had added on, served as a pedagogical device. It was not of immediate relevance as the novices had only had to perform CS when they are in the final year of their training whereas MS had to be performed immediately. Thus, the novices were involved in learning to read and interpret the MK and perform the action of serving the prescribed drugs, just like the expert staff nurses.

MS is performed several times in a day by staff nurses for various purposes such as, "for diagnosis, cure, relief, treatment and for the prevention of disease" (Berman, Synder, Kozier, & Erb, 2008, p. 830). Within this broad rubric of MS falls a range of other activities such as, "assessing patient's health conditions … and making goals for administering and monitoring effects of medication" (Manias, Aitken, & Dunning, 2004, p. 83).

In this web of responsibility although medication is ordered by the doctors and dispensed by pharmacists, administering medication correctly is the sole responsibility of nurses (O'Shea, 1999). MS is a core business of nursing and innate to the practice of nursing. Therefore, medication competence or being able to provide safe and effective medication becomes compulsory in the process of nursing. Hence, as early as in year-one semester two of clinical practice, the focus of training of student nurses begins with this crucial practice of MS in authentic ward settings with real patients, under the close guidance and supervision of experts such as their tutors or staff nurses in the ward.

Medication kardex. To perform MS and related management activities requires student nurses to read the Medication Kardex, also known as the Medication Administration Record of the patient. This consists sometimes of a few types of prescription sheets in addition to other multiple texts of the PCN, to get the complete data of their "patient script." When administering medication, novices need to know what information to look out for while reading the MK. Thus, they had to familiarise themselves with the format and specific features of this text type and be adept at reading the data presented in the columns and rows, almost immediately from day one of their clinical practice. This crucial reading proficiency of the MK would promote the novices' learning of interpretive skills in relation to the PCN and to perform MS

with competence. For the tutors, the task of teaching novices during Clinical practice is to enable them to read and interpret the non-linear texts peculiar to the profession.

Salient features of the medication kardex. An examination of MK reveals it consists of two essential parts: the written prescriptions and relevant details of the patient. While the former includes data on the prescriptions such as "name of drug to be administered, dosage of drug, frequency of administration, route of administration and signature of person writing the order," (Berman et al., 2008, p. 841), the latter section covers the patient's personal data such as patient's name, ward and bed number, hospital registration number and date of admission. This information on the MK is based on the eight principles also referred or Eight Rights of MS, as listed in the following segment.

1. The full name of patient which includes initials, first and surnames,
2. Names of the drugs prescribed ideally should be the generic name of the drug,
3. The date, month, the year and the time the order was issued,
4. The dosage of the drug which informs the amount to be administered,
5. The frequency or the number of times the drug has to be taken in a day
6. The route of administration of the drug whether the drug should be administered either via the parenteral route, where the medicine is administered through a needle or non-parenteral route where medication is served through the alimentary or the respiratory tract.
7. Signatures of the persons prescribing or administering the medication.
8. Rationale-The patient's need for the medication.

Reading of the kardex. A crucial dimension of MS involved reading and interpreting a specific non- linear text type that constituted the PCN namely the MK. A non- linear text type has its own peculiar features and is different from a linear text

type (Kress & van Leeuwen, 1996). An analysis of the MK revealed that information in it was minimal, abbreviated or in the form of terminology and was presented in columns and rows. Thus, reading a non-linear text such as the MK would not be the same as reading a linear text especially in the absence of cues. Thus, learning to serve medication crucially involves competence in reading the MK.

The learning environment to develop this competence is both at the classroom and the clinical setting. However, Reid-Seirl, Moxham, Walker, and Happell (2009) contend the latter plays a more crucial role in this learning. Lave and Wenger (1991) refer to this learning that takes place at the workplace within its CoP as legitimate peripheral participation (LPP). For legitimate peripherality to occur they state it requires participation of the novices into the "culture of practice" (p. 95). Participation, they claim is a path of learning which would enable novices to assemble a broad perspective of what constitutes "the practice of the community" (p. 95). These perspective seemed to underlie the motivation of the experts namely the tutors for providing the novices with opportunities to be "absorbed in" (p. 95), the culture of the practice of MS.

Guided by experts. The MK has been chosen as an important aspect of the training effort of this teaching hospital. The analysis of interviews and field notes illustrated the specifics of training to read the MK. It revealed that generally the effort is twofold. First, it is to ensure the novice grasps the basic content. This step is taken to help the students to realize what is missing and to seek this missing information. Hence, the novices had to know the order in which the MK has to be read. This is the knowledge that the profession from years of experience have conceptualised, as the best way to read the text to facilitate the serving of the medication and how to avoid redundancy. MS had the element of training for year-one student nurses; specifically

it revealed closer insights into text processing skills that promoted interpretive skills of one specific text type within the PCN.

Excerpts from my field notes of Izza, Arthi and Eva's training during their MS are presented to illustrate their move from peripheral to participation in a key practice of their community. The analysis also presents a number of issues that the novices had to attend to during the various phases of this learning. The issues raised for the novices by their expert tutors included: (a) verifying patient (b) establishing the reading path (c) verifying medication (d) establishing rationale for medication (e) verifying route of medication (f) identifying omissions and errors. A key finding that emerged revealed the diligence of the meticulous experts in providing the access to the learning that is presupposed in a MS.

The next section presents an excerpt from my field notes which captured the context and the interactions between the tutor and the novices who were being prepared to administer medication on their very first day of Clinical practice of the novices at a medical ward.

Learning to speak as a full participant. For novices learning to talk properly like full participants within the practice of CoP is posited crucial for gaining legitimacy of peripherality (Lave & Wenger, 1991. Additionally, they also assert the ability to learn to speak as an expert member is vital for "ensuring the progress of ongoing activity of their CoP" (p. 85). MS requires nurses to have a range of competencies and effective verbal communication is one of them (Hewit, 2010). Jordan cited in Lave and Wenger agrees that novices have to learn to talk appropriately like full participants and in the same manner they should also know "when to be silent" (p. 105). The following analysis from my field notes illustrates the training effort of the expert tutor

where the focus is on getting the novice to "speak in the manner of a full member of the community" (p. 105).

Verifying the patient. The first excerpt from my field notes illustrates the changes in Izza's legitimate peripheral participation as she participates in her maiden MS. The analysis also captures the training effort of her tutor Ms Foo, in trying to reinforce the first principle of MS (i.e., verifying the patient and the issues emerging for them). My field notes recorded:

> There are six beds in this male medical ward. Breakfast trays are already placed on patients' overhead bed table. Izza from the group starts off MS. Tutor is annoyed when she soon finds out that none of her mentees including Izza have found out the full names of their patients. She orders all of them to "introduce" themselves to their patients and then get the patients themselves to state their names ...." They come back within minutes to their temporary station-around the medication trolley. Ms Foo, asks Izza if she now knows the full name of her Chinese patient, Izza says "*yes, Mr Lim B. N*." Izza only gives the initials after the surname of the patient. Izza is ordered to go back again and get the full name of her patient. Ms Foo lectures the anxious group of novices, "*...before you begin serving medication, you need to be sure you have the right patient. Do you know that you may have one or two more Mr Lims in this room, so how do you know one from another?* Introduce yourself: "first, say I am a student nurse, my name is Izzaawati Ismail and I am going to serve you sir your medication. May I know your name, your full name please?"
>
> (Obs. Foo/Izza.lines 303-320.)

The analysis revealed that the literacy event here begins when the tutor reinforces the first right or principle of MS which is to ensure that the "actors" – the expert and the novices have the "right patient". This part required the novice to briefly interact with their respective patients and verify some personal data that they had obtained from their initial reading of the MK of their respective patients. Izza is about to start MS, but her tutor decides to make sure if Izza knows the additional identifier of her first patient (i.e., the full name needed to affirm the identity of her Chinese patient), is indeed her right patient. When Izza just gives just the initials, "*B. N*" and the surname, "*Lim*" of her patient, her tutor decides to do the needful. She sends Izza

as well as her peers including Ri running back to their patients to verify the initials before their respective patients' names.

The analysis illustrates that literacy is a social practice (Papen, 2005). This is implied when the tutor senses that the novices lacked the interpersonal skills needed to carry out this brief but meaningful interactive phase of MS. The analysis showed the tutor providing the novices the language resource to carry out a literacy practice of the discourse community, namely to affirm "accuracy of client identification" (Berman et al., 2008, p. 848), one of the first fundamentals of interpreting the MK.

The analysis appears to be consistent with research literature that asserts that "the process of learning to be a full member of the CoP" requires the novice to also "speak as a full member" (Lave & Wenger, 1991, p.106). Lave and Wenger (1991) argue that newcomers to CoP have to adhere to "proper speech" as not only is it, a "collective expectation of the community" (p. 106) but most importantly it is crucial in ensuring that an ongoing activity (i.e., in this case the verifying of the patient) takes place effectively. The next section reveals further evidence of the training effort of expert in orientating the novice to the order in which the Kardex has to be read to participate in the MS.

Establishing the reading the path. The following excerpt on MS is drawn to illustrate how the spoken interaction of the expert contributes to helping the novice in the reading the MK. My field notes noted:

> Izza appears unwell and is sniffing. She takes out her ruler. Tutor tells her to make sure she has got the correct Medication order sheet. Izza reponds by reading aloud the heading of the text type: "Non-Parenteral Prescription & Administration Chart." Ms Foo tells Izza to focus on the table at the bottom right hand corner. Izza reads aloud the RN: registration number 16845650, Name of the patient: Mr Lim Boon Wei; Date of birth: 15 February 1949: age: 63 and ward details Ward12. Tutor intervenes and tells Izza, "Now go to the top of the page, do you see the widest, vertical column on the left of the page. Read aloud the data in the first box on the top of the page." Izza places her ruler carefully parallel on the first horizontal line across and reads aloud, data

> in the box: "weight 56 kg; date of Admission 27 March 2012." Then she pauses a second as she reads the data in the parallel box: "No allergies and adverse reactions." Tutor now stops the reading and asks Izza to take out the specific medication tray of her patient and leave it on the trolley next to her MK. Now she instructs Izza to go back to the first vertical column and read...
>
> (Obs.Izza.lines, 358-500)

The data shows the tutor guiding the novice to read a crucial text -the Non-Parenteral Kardex, one of the prescription sheets of the MK. Some key insights into the training of the novices are revealed through situatedness of the activity. Firstly, the analysis captures both the training element and learning that takes place between the expert tutor and the novice on a one to one basis at the bedside of the patient who is waiting for his medication. Secondly, the findings reveal the main focus of MS at this juncture was on how to read the filled Non-Parenteral Kardex. The spoken interaction around the text is in the language of medicine.

The order of reading is particularly important as this is the maiden MS of the novices. The Kardex being a non-linear text has to be read in a specific way. This was seen when the tutor instructs Izza to, "go to the bottom of the right hand corner of the page and read aloud the data in the box," at the start of her reading. Having done that, Izza is directed to read the data found, "in the first broad vertical column, on the top left hand corner of the page". Izza then reads aloud the data on the patient's weight, date of admission and the patient's allergy and adverse reactions, if any. The reading aloud stops temporarily as both of them take out the tray containing the drugs for the patient from the medication trolley prepared by the pharmacist. The reading resumes as the tutor directs the novice back to the first vertical column for the names of the rest of the drugs ordered by the doctor.

The analysis resembles Barton and Hamilton's (2005) claim that this is reading is typical of most workplace text which is "formulaic, limited and constrained" while the language itself has its own specific discourse (p. 19). Following Lave and

Wenger's (1991) assertion that didactic use of language and the talk as observed in this excerpt between Izza and her tutor, may not necessarily suggest that the novice has learnt the actual practice of interpreting the data to carry out MS. Nevertheless, they contend that talk and interactions that take place within a community are central to a novice's legitimate peripheral participation.

A further insight into the way the novices were taught to make sense of the layout and salient sections of the non-linear text of the Kardex was obtained from the excerpt. The analysis shows the tutor literally holding Izza's hand when traversing this text for example, at the start of her reading when she directs Izza, "to go to the bottom of the right hand corner of the page and read aloud the data in the box," and then, "to read the data found in the first widest vertical column...." and the corresponding horizontal rows.

By directing the novices' reading to and fro and across this non-linear text, the tutor appeared to have applied a concept posited by Kress and Leeuwen (1996). They claim that the composition of some non- linear texts such as that seen in the Kardex have, "particular hierarchies of movements" (p. 218) implying different types of data in the text are given "different information values" (p. 212). These different values seemed to have given a certain ordering among the various parts or elements in the text, signifying the "salience" of some of the elements in this non-linear text over the others. Specifically, the findings from the analysis informs of the guidance and the effort taken by the experts to enable the novices to read the Kardex where the data is not presented as in a linear text.

Data that shed light on understanding how the participants learned to read and interpret the MK were also drawn from the analysis of interviews with the participants and the other informed individuals namely tutors and lecturers. This finding was

triangulated with findings emerging during an interview with two experts. During an interview, Ms Foo had revealed that among the reasons she adopted a very stringent approach when teaching the novices to read the Kardex was due to the, "presentation of information in the Medication Kardex is such that they have to be closely guided at every turn from the start to the end of MS…" (Int.Ms Foo.lines 14-16).

Similar findings were also inferred from data obtained from an informal interview with Ms Kala, a tutor on how she would teach a novice to read the Kardex on her first day of MS. She reveals:

> I will get student nurses to read aloud. Different parts in the Medication Kardex, focuses on the different principles of MS and they could appear disconnected, to the novice. But the Kardex cannot be read as they like, for example they should begin to by reading the data on allergy to medicine in the left hand corner of the Kardex. If they don't know how to read the Kardex, important data will be left out. They have to be taught to read the Kardex but sometimes there is a tendency for them to forget, to skip steps
>
> (Ms Foo, PC. 28 Dec, 2013)

The analysis from interviews affirm that the text contains 'different parts' and 'data' and that they are positioned at different levels in the Kardex. This positioning was implied, for example, when Ms Kala explained that the information on the top left hand corner of the text provides information regarding the patient's allergy and reactions to drugs. This is crucial data and has to be read soon after verifying the patient and interpreted in relation to MS to prevent adverse effects of medication that will be administered right after. The analysis shows that despite the novices being "closely guided at every turn from the start to the end of MS", the novices have the tendency to, "to forget, to skip steps...." as they read the Kardex, the text at the centre of the interpretive effort in literacy MS.

The findings indicated reading the value attached to the part on allergy and reactions to drugs are a prerequisite for MS. Kress and Leeuwen (1996) claim regardless of where the elements are positioned in a text, the salience of the elements

"makes some elements more worthy of attention than the others" (p. 212). Analysis of my field notes too revealed the presence of "hierarchies of movements" (p. 218) among the elements in the Kardex.

This was observable when Ms Foo instructed the novice to begin the process of MS by reading the data contained in the box at the bottom right hand corner of the text for accuracy of patient's identification. Next, Ms Foo directs Izza to move to the top vertical column on the left margin of the text and read the data on weight, date of admission and drug allergies, before going on to read the first vertical column to obtain information pertaining to the medication ordered by the doctor. This order of reading ensures first, that the patient is identified correctly, then the allergies are noted so that no medication to which the patient is allergic is served. Only then is the medication list seen and prepared.

The findings from the excerpt points to why the novices have to read the Kardex in a particular way. It became apparent the novices were being sensitised to the specific "reading path" of the Kardex, which has implications for meaning-making of the data in the Kardex. Specifically, the reading path appears to provide a form of coherence and logic to the text that they are reading, to carry out MS. This finding affirms Ms Kala's contention that, although the different parts in the Kardex appear disconnected, it does not mean "the text can be read as one likes," implying the text has a specific reading path that has to be read in order to make meaning. Kress and Leeuwen (1996), however, claim that in reading elements in non-linear texts, readers may use different reading paths. However, data from the interview with Ms Kala shows that this is not plausible in the case of reading the Kardex. This is due to the "salience" or the presence of particular hierarchies of movements of the elements across the text.

This analysis is significant as it illustrates that one way for the novices to "increase their participation" in their CoP is through knowing the artefacts engaged in the practice. The PCN is a pivotal text of the CoP and as Lave and Wenger inform artefacts, "carry a substantial portion of the practice's heritage" (p. 101). The findings from this segment are significant as it indicated that interpretation of the MK involves knowing what the text contains and knowing in what order the information has to be read and why it requires to be read in that specific way. Specifically the analysis had illustrated that the interactive actions of the expert tutor in establishing the reading path of this specific text was a crucial step in facilitating meaning making of the data.

Ormerod and Ivanic (2000) state that observation field notes provide the starting point for interviews. Excerpts from an interview with the participants were drawn to verify insights that emerged from the above analysis. An informal group interview with a few of the participants helped me to understand the analysis from observations field notes of the novices' sense making of the Kardex and the nature of their legitimate peripheral participation. One of my questions was: "How is the filled Kardex different from the other texts you have seen and used thus far," received the following responses. Izza answered, "…I have to read the Kardex loud before my tutor, in certain way and fast because so many patients are waiting for our medication" (Int.Grp.Izza/Yaaz/Ri.lines 10-11). Yaaz had the following response:

> the Kardex is different. Not like doctors' notes. It contains terms like names of medication, dosage of medicine, route to give medication, frequency and time. Also it had lesser words but they mean a lot and all were written in columns or in rows
>
> (Int Grp.Izza/Yaaz/Ri/.G.Lines 22-25)

Similarly, Ri's response too informs how reading of the Kardex is different from the other texts like the doctor's notes:

> Reading the Kardex is not top to bottom, not left to right. The first time I read the MK I just didn't know how to read it. In class I have been taught how to

> read the Kardex but I was still not sure on how to read the data in the Kardex in the ward before the patients. Sometimes, I used to miss special orders of the doctors like a STAT order. Luckily the staff nurse was there and she actually discovered my mistake on the spot and taught me, pointed out how to read the different parts of the Kardex.
>
> (Int. G/Izza/Yaaz/Ri.lines 26-32)

The analysis revealed the various text processing difficulties encountered by the participants. Data from Ri for example reveals that he was unclear on how to read the Kardex in a specific manner. He also revealed that on number of occasions he had missed reading and interpreting the orders of the doctors. Izza's one line response, "the Kardex had to be read aloud, in a certain way and fast..." sums the kind of reading that is demanded of them when reading the Kardex.

This finding points to the feature of automaticity and habituation. The findings from this segment shows that automaticity of reaction to routine features need to be an attitudinal feature of all nurses. The expert staff nurses have to habitually serve medicine to the patients every day. The daily serving of medicine makes a habit of Kardex reading and provides the nurse with the speed and efficiency that habit-formation provides. The "*reading aloud*," feature also reminds us of the fact that the features of the Kardex are fixed and that when the novices read aloud the text, the tutor as an established member of the discourse community would be able to follow the novice even though the information that is being read is not visible to the tutor. Memory of content that should be in each column and row helps the tutor check on the performance of the novice.

The data from all three novices revealed their view that reading the Kardex is a complex task that has to be followed through simultaneously with MS. The analysis also suggests that both Yaaz and Ri seemed to be more aware the Kardex is of a specific text type with its own conventions, hence it has to be read differently. This was implied when Yaaz differentiated the specifics of the Kardex from that of the

doctors' notes. She was also able to tell the Kardex had, "*lesser words*" but Yaaz was aware that the fewer the words, the more meaningful they were. The urgency of the context, the need for doctors to use short forms and assume the team's knowledge of terminology peculiar to the discipline of medicine and the realisation that, "the patients would be waiting" for their medication, also became more salient and worthy for the new novices.

Yaaz also recognized that the words in the text were represented in "columns or in rows" which implied that she had to "sequence and connect them" to obtain a coherent picture of the "patient script". The findings showed that the participants had intuitively sensed the Kardex was "designed to be read" (Kress & Leeuwen, 2001, p. 218) in a specific way unlike a linear text like, "the doctors' notes."

Ri reveals that he had learned to use the Kardex in the classroom. Yet, he found it difficult to read the filled authentic Kardex coherently in the actual context of MS in the clinical setting. He also highlights a consequence of his poor reading proficiency of the Kardex that had nearly resulted in him leaving out crucial "codes" on patient's medication and patient not receiving the special STAT order or a medication order that has to be given immediately but only once as prescribed by the consultant for a patient.

Ri was right when he states the reading of the Kardex was, "not top to bottom, not left to right," as one would read a linear text. The Kardex is a non-linear text hence; it cannot be read in a linear order implying that there is a specific way of reading this text type. The fact that he was helped by the staff nurse also points to another feature of the training situation. The tutors are not only teachers of the novices. The findings showed the whole team of medical professionals teaches.

The evidence from Ri that they have encountered the Kardex in the class learning was also verified with, Ms Gia, their pharmacology lecturer, during an informal interview at premises of the Nursing college. She reveals the students have been shown the different text types "through video shoots". Additionally they are given opportunities to fill the salient parts of the Kardex with realistic "data" of their fictitious" patient Ms Gia and practice reading them aloud (Ms Gia,PC, Feb, 15, 2014).

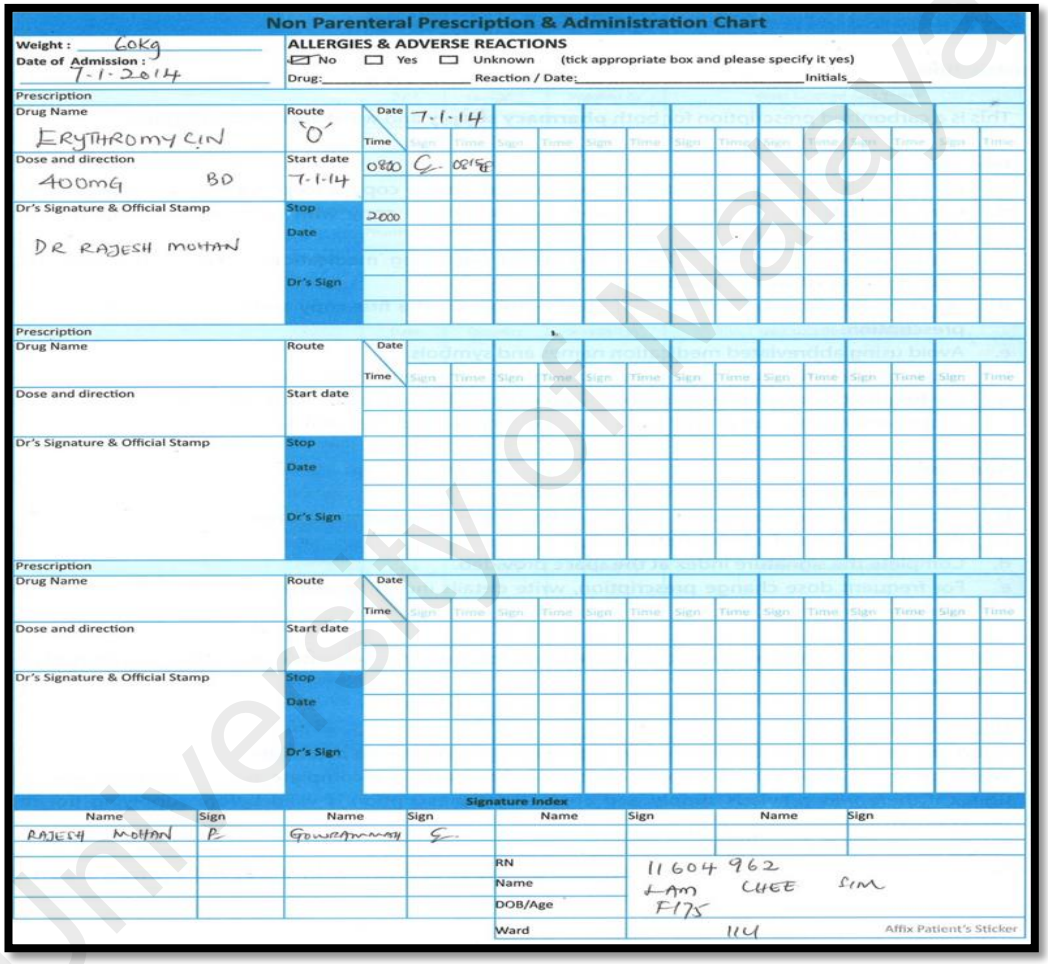

Figure 4.5. Sample of the dummy kardex.

This analysis revealed some of the difficulties faced by Izza, Yaaz, and Ri during MS was traced to the text type (see Figure 4.5). The text of MS is embedded within the non- linear text of the Medication Kardex. An initial pattern that emerged from the findings of interview with Yaaz for example was having "fewer words" on

the Kardex implied that the novice had to depend on devices such as their visual ability and their knowledge of the reading path in their making sense of this text type. The analysis also confirms the assertion by Sulosaari, Kajander, Hupli, Huupponen and Leino-Kilpi (2011) that the development of student nurses' medication competence takes place in varied learning environments, such as the educational institution and clinical learning environment. The interview data implied the teaching that took place in the Pharmacology classrooms did equip novices such as Ri and Yaaz with a base of prior knowledge to read the data in the different subsets of the Medication Kardex such as the parenteral Kardex and the Intravenous Kardex. Hence the question arising is whether the novices were able to immediately transfer the learning that took place via instruction in the classrooms and in the skills laboratories to the actual performance context of the clinical setting?

Hanks (1991) claims that, when there is a divide between the educational setting where the novice is trained and the actual performance context, there is a possibility that the novice may be unable "to manage the learning situation apart from the ability to perform the skill that is being taught" (p. 21). This is also affirmed by Lave and Wenger (1991) who claim that the place of learning resides within an ambient community; thus, learning occurs through centripetal participation in learning rather than imitating the actions of others or acquired from instruction. The next excerpt from field notes discusses issues related to the third principle or right of MS in the Kardex.

Establishing rationale for medication. The next excerpt from field notes containing data on Arthi's MS under the guidance of her tutor Ms Aizah, provides further evidence of her of training in reading and interpreting data specifically related to the prescription order in the Kardex. Besides this, the fieldnotes of Arthi's MS at

the clinical setting provides evidence of the divide between the educational setting where the novice was trained and the actual performance context. My field notes reads:

> Arthi aligns her ruler on the second horizontal row labelled prescription and reads the name of the first medication to be served. Arthi has problems pronouncing the name of the medication, "esomeprazole". Her tutor asks her, "What is it for?" Arthi has no answer but quickly takes out her notes from her pocket and scans through her handwritten notes. Tutor is visibly annoyed. She tells her, "You have been here for some time. You should have learnt something about the drug". Arthi …encounters problems reading the dosage of the medication. Tutor takes over and reads it for her: "40 mg one tablet before meal.
>
> (Arthi.Obs.lines3044-3054)

This segment of data shows Arthi preparing to read the third salient part of the medication order, which consists of details related to one of the prescribed drugs, for the day. Arthi's MS did not start off smoothly. The novice is a little stunned by the tutor's question to which she is able to neither give an answer nor get one from the tutor other than a reprimand. Several insights of the novices' learning of this crucial practice of nursing emanating from reading the Kardex can be drawn. When Arthi reads the name of the drug, "esomeprazole", her tutor decides to ask the pertinent question- "What is it for?" The question is pertinent as a learner is "supposed to be" always learning. The fact that Arthi probably has come across the medication *esomeprazole* and yet not learnt its association with the medical condition of the patient implies to the tutor that Arthi is not learning as expected. The analysis shows that just sounding the name of the drug alone would not reflect the actual complexity of the social and historical context, in which the intended act of serving the particular medication is to take place.

This segment also revealed that Arthi, encountered problems in reading the dosage which is expressed in abbreviations and minimal language. Dosage is equally crucial in MS as it informs the amount of as well as the frequency or times the

medication has to be administered. This prompts Ms Aizah, Arthi's tutor, to read the dosage as she becomes aware that Arthi did not seem to have the language of the experts to express "dosage", the fourth principle of MS. Ms Aizah's act of providing this language resource to carry out the linguistic aspect of MS is similar to that of Ms Foo, Izza's tutor (see p. 101). This analysis reinforces the earlier finding that the Kardex has to be read aloud, fast and in a specific formulaic way. To do this the novice has to be acclimatised to the specific discourse of the discipline until it becomes habituated so that the specific discourse and the actions corresponding are instantaneously invoked, a form of sense making. This is assumed to provide the novice the speed and efficiency required during Kardex reading.

Administration of wrong medication is a ubiquitous nursing problem and unfamiliarity with medication and wrong dose have been identified as two of the interrelated factors contributing to this problem (Tang F-I et al 2007, p. 448). Hence, it seems right that the tutor use the momentary "silence" of the novice, as a learning opportunity provided by the clinical learning environment to facilitate the novice's interpretation of the data she is reading. The action of the tutor to link the medication to the patient's need for medication is also in line with the eighth principle or right of MS – the rationale for the prescribed medication (Honey & Lim, 2008). Providing the language to read the prescribed dosage can be seen as training effort of the experts to enable the novice to move beyond reading the words on the page of the Kardex, to the centripetal activities of the CoP.

A guideline on MS requires nurses to be "knowledgeable of the medicine they are giving" and for that they need to know why the patient is receiving the medication (Berman et al., 2008, p. 846). The tutor's act of merely asking the question without providing the novice the scaffolds to facilitate interpretation may appear to be harsh.

However, an assumption is that the question of the tutor itself had served as a gauge to the novice, on the gaps in her meaning making process which she needs to address. This view also concurs with Lave and Wenger's (1991) view that legitimate peripheral participation does not mean just "imitation" of the experts but involves, "participation... to learn to become full practitioners" (1991, p. 95). They further claim that for legitimate Peripheral Participation to take place, the learning has to be a "situated activity" (p. 33) meaning, Arthi has to have a "comprehensive understanding" (p. 33) of the specific circumstances which warrants the patient before her to be given that particular medication.

The next two excerpts of my field notes presented is a continuation from Arthi's reading of the MK before her meticulous tutor.

Identifying omissions and errors. The following excerpt from the field notes illustrates further the specifics of learning to read the MK. Generally the effort is twofold: to ensure the novice grasps the basic contents and knows the order in which the Kardex has to be read. This step is taken to help the student realize what is missing and to seek this missing information. The next segment from my field notes noted this theme during the interactions between Arthi and her stern tutor:

> .Arthi reads the next column labelled route but realises the box is not filled but goes on to read the date on which medication was ordered for the patient. Tutor who is listening stops the reading and tries to locate the missing data. Tutor tells her, "Something is not right here, column two: route is not stated and this will cause confusion. Staff nurses will understand but student nurses like you will not. I want you to find out now from the staff nurse." She then asks, "Has the patient been given her medication to which Arthi says, "no". To which tutor remarks, "how can the disease be controlled if medication is not given on time? The tutor sternly reminds Arthi, "Medication must be given according to time,"
>
> (Obs, Arthi lines 3060-3065)

The analysis shows Arthi reading aloud the medication order without specifying the *route* of administering the drug, the fifth principle of medication. The

tutor is Arthi's intended audience. Arthi skips reading the *route* as the space in the column is unfilled. Without any hesitation, Arthi moves to read data on the date, another principle in MS, on which the medication was ordered by the doctor. The tutor who is listening is visibly annoyed both by the writer of the Kardex as well as by the actions of the novice who did not bat an eyelid over the omission of data. She stops Arthi's reading immediately when she realizes there are a number issues that need to be addressed before the novice is able to interpret the data in the Kardex as illustrated in this segment of the same field notes:

> Tutor is still studying the Kardex. She notices that entries in the rows and columns have reached the maximum margin of the page. Signatures and abbreviations of doctors who have ordered the medication and staff nurses who served medication are squeezed into the available spaces.... Arthi's tutor looks visibly angry, when she states, "I want this to be settled right now." The MS of the patient is temporarily put on hold. Lily, Arthi's friend is tasked to get the doctor to record the medication on a new sheet... while Arthi moves on to her next patient.
>
> (Obs, Arthi lines 3064-3070)

The analysis shows a further scrutiny of the Kardex by the expert tutor reveals that entry of data by staff nurses and doctors had reached the margin of the page, rendering the signatures of doctors and staff nurses illegible and reading difficult. The tutor then decides to temporarily stop MS of the patient based on the violation of the seventh principle of Medication until the current data from the Kardex is transferred into a new non-parenteral sheet by a doctor.

The findings implied that the tutor's actions of highlighting the errors, omissions and illegible handwriting in the Kardex reflect the notion that the tutor has used these instances as contextualised, "didactic exemplars from everyday practice", in the learning of a new practice. As Lave and Wenger (1991) posit, a learning curriculum is the "characteristic of a community" and it is "situated" (p. 97) and not "manipulated" in the examples inserted. Thus, the resources for learning are "didactic

situations such as the ones experienced by Arthi and Izza which they need to learn to become legitimate peripheral participants.

This finding exemplifies a point emphasized by Lave and Wenger (1991) that the learning curriculum of a community is basically situated in its daily practices which in itself are a wealth of resources for learning and their legitimate peripheral participation. This analysis also illustrated the expert tutor using a didactic instance to link theory to practice. This is contrary to the claims made by Honey and Lim (2008) and Manias and Bullock (2002) that there are few learning opportunities for practice in the clinical learning environment. This analysis shows the tutor as an expert member of the community, using this learning opportunity to facilitate the novice's access toward legitimate peripheral participation.

The goal to acquire competence in the target practice of interpreting the data in the Kardex is engendered by the pedagogical competence of the individual expert tutor, who in this instance as the findings suggests prompts the novice to participate at a different level. Lave and Wenger (1991) state that a discourse community sanctions its members to participate at "multiple levels" (p. 98). A subtle scaffold provided to facilitate Arthi's meaning making activity is revealed when it is her turn to read the Kardex before her stern tutor. Like Izza, Arthi appears to have a reading path to traverse the Kardex however, she does not indicate to the tutor that there is an omission of data related to the "route" one of the salient elements in reading the non-linear text and continues to read the next element on "time." The tutor being an expert is sensitised to the omission of this crucial data and orders the novice to stop her reading. She points out to the novice the gravity of this omission in terms of the eight principles or rights of MS.

The anomaly related to the illegibility of signatures in the Kardex serves as another resource for highlighting a crucial aspect of MS - the legal aspect. When the tutor stops the novice from administering medication of her patient, on grounds of the illegibility of the signature of the prescribing doctor, this serves to highlight the gravity of the consequence of ignoring it as something trivial. The signature of the prescribing doctor also referred to as the seventh principle of MS, is interpreted as the legal authority that validates the order of the drug on the list as a legal request.

Significantly, the data implied that novices like Arthi learn didactically that a medication order requires a legible signature of the prescribing doctor, without which she as novice nurse is not allowed to serve the medication to her patient. In the process, she also learns if she were to administer a written an incorrect medication order then she is responsible for the error, just as much as the doctor is. The anomaly serves to demonstrate the significance of interpreting this salient element, which focuses on the seventh principle of MS embodied in the Kardex that defines the limits of "nursing practice acts." (Berman et al., 2008, p. 832). To go beyond the limits of the act not only has the potential to harm patients but also subjects the staff to malpractice suits. The field notes on Izza and Arthi's MS reveals the tutors in a one to one format with their mentees. Their interrogation style creates knowledge that becomes intuitive and habitual. Unclear expressions and illegible writing of doctors have been cited as a source misinterpretation of data in the Kardex and the resultant medication errors and adversities (Tang, Sheu, Yu, Wei, & Chen, 2007).

Data from interviews with other informed individuals were also drawn to provide evidence to strengthen some of the findings that emerged through analysis of observation field notes and interviews with the participants. Ms Zai, a senior nursing tutor when asked, "What were the difficulties faced by the novices when they had to

read the Kardex?" surprisingly pointed that a nagging problem that hindered MS stemmed from mechanics of writing (e.g., handwriting, placing decimal points…), specifically that of doctors' entries into the Kardex. Ms Zai revealed illegible handwriting as a persistent problem. Poor handwriting may seem to be trivial matter. However, in the case of the novices who were coping with a range of other discipline specific reading features of their workplace text, illegible handwriting indeed caused them some difficulties. This difficulty was implied during an interview on observation with Arthi. To an interview question, "what would have made reading of the multiple texts easier?" Arthi replied, "Information that is "written nicely" would make "it is easier for us to understand" (Int.Arthi.line25-26).

To a further question "what happens when you encounter instances when you were unable to make out a handwriting that was not clear in the Medication Order?" Arthi replied, "When I am not able to follow an order or procedure, I need to keep on asking the staff nurse because I cannot understand the doctor's orders" (Int.Arthi.line 30-33).

An assumption that can be implied based on the analysis is that illegible handwriting might not pose serious reading difficulties to the expert users who are habitual users of the Kardex. However, the analysis informs us that, as Ms Zai had stated, illegibility of handwriting had caused some disruption to Arthi's reading and sense making of the doctor's order in the Kardex. The findings also showed illegible handwriting and Arthi's dependence on the staff nurses for help had slowed down her reading. Another inferred implication of poor handwriting in this instance was that it could have delayed the serving of medication to Arthi's assigned patients. Ms Foo, Izza's tutor had mentioned during an interview that she wears a different hat during MS mainly because she wants to convey to the novices, the message that,

"interruptions", however trivial cannot be tolerated during the serving of medication. The analysis revealed odds of all sorts against novices like Arthi at this point in MS.

Clearly omissions and illegibility of signatures in the Kardex during MS in the first week of MS had affected her performance at the workplace, something that she and the other novices had looked forward to with great enthusiasm. The omissions had caused confusion, unnecessary chiding and interruptions in serving medication. This finding is also in line with the study by Tang et al. (2007) which reported doctors' unclear expressions and illegible writing were one of the contributing factors to medication errors by nurses.

The findings suggest that interpretation in this context means knowing to read the information in the non-linear text according to different information values of the various sets of data which seemed to have given a certain ordering among the various parts or elements in the text. Interpretation also involves recognizing what salient features of the Kardex have been omitted. The finding that emerged from this analysis suggests that interpretive skills involved in reading the Medication Kardex also involved recognising omissions and errors due to an oversight on the part of the writers of the Kardex.

Sensitising the novices to the learning curriculum. It could be inferred these acts such as providing the novice the language of the discourse community when she encountered problems in reading the salient elements in the Kardex and drawing on omissions and anomalies in the presentation of data, the tutor had afforded Arthi the devices to facilitate her interpretation of the Kardex. More importantly, the analysis suggests that the tutor as an expert who embodies practice at its fullest in the discourse community (p. 85) has sensitised the novice to the "potential learning curriculum" of the experts in the CoP as Lave and Wenger (1991, p. 93) assert. A question that arises

is how would knowing the "potential learning curriculum" benefit the novice? Firstly, as Lave and Wenger (1991) assert, knowing the potential learning curriculum helps the novice visualize the "whole enterprise" (p. 93) which enables the novice to set goals. For example, during Arthi's reading of the Kardex, the route for the medication is not given. Yet, she makes no mention of the omission and moves on to the next element on "time". It becomes quite obvious that Arthi has not visualised the whole enterprise of "reading" the Kardex or "MS. However, a having a whole picture of the learning curriculum would have provided goals for the novice who is a peripheral participant.

One feature not perhaps well-represented in the data but nevertheless important is the fact that medicine is a constantly enlarging field. One such area of enlargement involves routes of medication. Administering correct medication to patients is becoming an extremely difficult task and one of the sources that account for medication errors attributed to choosing of the wrong routes (F-I Tang et al., 2007). This is because of the existence numerous medication delivery routes that have been included over time, which were once confined to oral (p.o), hypodermal (Hypo), intramuscular (i.m.) and intravenous (i.v, (p.448). Additionally, route is often stated in abbreviated terms. In view of this complexity, all of which have implications for MS, the omissions of routes have grave implications as it lends itself to nursing errors.

The timely intervention of the tutor at this juncture provides novices like Arthi to see the gravity of the missing data to a novice who will be actually carrying out the task instantaneously without any practice sessions. This analysis demonstrates situated learning specifically what "learning in practice" (Lave, 1991, p. 72) entails in communities of practice. The finding from this segment also illustrates what it would take them to become legitimate peripheral participants of the community. The

attention on the omissions and the immediacy of getting the novice to seek clarification from the expert provides the novice ways of reading and interpreting the Kardex.

The Kardex is a non-linear vertical text and thus it has a specific way of reading which determined the way in which meaning-making of the data is made. One of the findings had revealed that although they had learnt to read, interpret and fill data in the Kardex in the classroom setting of their educational institution and practiced skills linked to MS, the finding from this segment once again, however, indicated that their classroom learning was still decontextualised from the actual performance context in the clinical learning environment.

The findings also demonstrated that through the individual pedagogical competence that resided within each of the experts, the novices were made aware of the specific literacy practices involved in reading the Kardex. An interview with Ms Foo, a tutor, confirmed that the Kardex is read differently. She explained:

> a reader will have to read the horizontal column which contains data on … after having read the horizontal text are they are to read the vertical column which carries verbal information on time, special orders, … (Int MSsFoo.lines 9-11).

The data indicated the novices were made aware through conscious pedagogy that there was there a "reading path" (Kress & Leeuwen, 2001, p. 218) to navigate this non-linear text. Although the experts do not use the term "reading path" that Kress and Leeuwen use, the presence of a reading path was gleaned from analysis of my observation field notes of the training of novices by the tutors and interview data from both the tutors and participants. The reading path is crucial because data in the Kardex is presented in vertical and horizontal columns and rows, because the way different data is positioned in the Kardex automatically makes some parts more worthy of attention than others. Hence, interpretation of the data in the Kardex entails knowing in what order to read this information. This is what creates the hierarchies of

movements. The following section discusses how interpretation of data in the Medication Kardex is further facilitated during the expert-novice interactions that take place during the stage when medication for the patient is being prepared for administering it to the patient.

Taking out the medication. The following excerpt from the field notes illustrates the last phase of learning to interpret the Medication Kardex before the patients in the geriatric ward are served the prescribed drugs. As tutor comes into the ward Eva greets her tutor and informs her that her patient in bed 10 did not have an identification tag but she had managed to obtain one by tracing the patient's sticker from the Kardex and other text types. The tutor appears to be impressed by the novice's initiative as she replies: "It's good, that you did that Eva. Anyway get ready" (Obs.Eva584-609). The following segment from an excerpt of my field notes of Eva's MS under the tutelage of her tutor Ms Azian recorded:

> The clinical setting is getting busier. Many groups are people, housemen, technicians, therapists, student nurses... occupy every bit of space.... Eva reads aloud the first medication on the list prescribed for her patient: "*Slow K*". Eva and her tutor checks for *Slow K* but it is not in the medicine trolley. Together they leave their station to ask the staff nurse about the medication. Staff nurse locates the medication after a brief search. Ms Azian hands the container to Eva.... Eva reads out the next medication, Aspirin. There is some confusion when Eva did not see the generic name on the medication sachet as it had been cut in the wrong place. Tutor says this is "*dangerous thing to do. Luckily you noted that Eva. I have to tell the staff nurse not to do this*".
>
> Both, tutor and the novice, report the "mutilation" to the staff nurse in charge. Another sachet of the medicine is replenished to replace the mutilated sachet. Tutor reminds the student nurses that sachets where medication information is not clear should not be served by student nurses. Augmentin the next prescribed drug is also not in the tray. Eva mumbles, "*just not my day*." The available medication is put into a plastic container and taken to patient's bed. Tutor reminds Eva to, "verify once again patient's tag with the sticker containing patient's sticker on the Kardex and make sure patient has water to drink...." Eva tells patient, Augmentin will be given later. Patient is coaxed to take the medication under the watchful eyes of the novice and tutor.
>
> (Obs.Eva. 631-656)

The data reveals the last phase of MS of non-parenteral medication involves a few steps. The first step involves reading aloud the prescribed medication, Eva does not have any problem in reading the names of medication which conforms to the third principle of MS which requires the name of the drugs (generic/trade)to be written clearly. Unlike Arthi's tutor, Ms Azian, does not interrupt Eva at this stage to ask her for the rationale for giving the prescribed drugs. The data however, shows Eva's MS in this busy geriatric ward at the stage of verifying medication in the Kardex and taking out the drugs from the medication trolley did not flow smoothly.

The second step involves taking out the medication to be administered to the patient from the medication trolley. For some unexplained reason, none of the prescribed drugs were readily available and the data shows this had an unnerving effect on the novice causing her to mumble, "*Just not my day*." The interruptions were causing a delay in patients receiving their morning medication which has implications for the numerous routines of the patient treatment plans and the clinical teaching of the various multidisciplinary groups that is about to begin. The next step saw Eva placing all the available prescribed medication into a container on to a tray. Eva does a quick identification of the patient receiving the medication before communicating her intention of serving medication.

The confusion resulting from the mutilated sachet, nevertheless, had afforded the tutor devices to facilitate the novice's interpretation of the Kardex. This step was seen when the tutor gets Eva to focus on the acts of carelessness on the part of expert nurses who had left a mutilated sachet that obscured both the generic name and the dosage of the drug, for the incoming staff nurse/student nurse of the next shift. This violation of MS saw the tutor swing into action as she gets the novice to accompany

her on three different instances to report the missing drugs as well as the mutilated sachet containing "an unknown drug" to the staff nurse in charge.

When the tutor, as an expert member, teaches the novice the proper way to make sense of the objective data in the Kardex, which emerged out of the situated activity, she was in fact facilitating Eva's interpretation of the Medication Kardex. The analysis revealed interpretation of Medication Kardex also involves knowing what is an accepted benchmark of MS. Sense making also includes seeking immediate clarification over discrepancies with other informed individuals at the workplace specifically the staff nurse in charge.

The final step in MS involved a literacy task and the tutor using a learning opportunity that emerged from the situatedness of the practice that resulted in Eva's meaning making of the Medication Kardex. The following segment from my field notes of Eva's MS captures this learning curriculum:

> Eva goes back to her station and records the information of her serving the medication into the Kardex of the patient..., under the watchful eyes and hearing of the tutor. Tutor checks the information recorded by Eva.... Tutor detects an unsigned column next to a medication order on the Kardex. Eva's patient has not been given the nebuliser despite a STAT order for nebuliser to be given at 6 am....Tutor questions Eva on why the asthmatic patient has not been given the nebuliser... and if she knows the risk factor involved…
>
> (Obs.Evalines 887-891)

The data reveals that Eva is even more closely supervised as she records information pertaining to the medications that she served and the one that has been omitted (Augmentin) due to unavailability of the medication at the time of serving. The final act of MS was to put down her signature next to the medications that she had served. However, Eva made no mention about the patient's STAT order nor the fact that the nebuliser had not been given. When Eva was questioned, her response was:

In my understanding of STAT is it should be given by a doctor and not by a staff nurse so I didn't ask her and also I didn't know of the STAT order which is written at the back of the Kardex.

(Obs. Eva lines 893-895)

The data shows once again the pervasiveness of minimalistic language and abbreviations used in the Kardex and other text types of the PCN. STAT is one common medication order which means the drug has to be administered immediately but only once at the stipulated time stated. The analysis suggests that Eva has clearly misunderstood the concept of a STAT order. She has misconstrued the drug order as something that should be administered by a doctor and not a staff nurse. Additionally, the analysis reveals Eva's ignorance when she states that she had not realised the location of a STAT order in the Medication Kardex unlike her tutor who as an expert has developed the speed and efficiency to become habituated to the routine features of literacy practices involving the Medication Kardex which the novice is yet to develop. Eva's personal perspective became a barrier to her sense making of the data in the Kardex resulting in her not alerting the staff nurse that the patient had not received the STAT dose prescribed by the doctor.

The tutor once again seizes the potential for learning that emerged from this situated activity emanating from the misconceptions of the novice related to the terminology and interpreting the data in the Kardex. This is seen when she embarks on setting straight Eva's misconceptions regarding STAT, a medical terminology and what it stands for and reinforcing the notion of accountability of nurses in ensuring the patient gets the best nursing care. The analysis from this segment reveals that interpretation of the Medication Kardex entails drawing upon and integrating pharmacological knowledge that they had learned in the classrooms into practice.

Chapter Summary

This section reports the overall findings that emerged from the investigation of two research questions. In presenting the findings I used Lave and Wenger, as a theoretical basis to identify themes in terms of how they developed awareness that eventually led them to develop the patient script. The main focus of the investigation of this study was on understanding the legitimate peripheral participation of year-one student nurses and their use of the PCN: a pivotal artefact of the multiple communities of practice in the context of this large teaching hospital. Specifically my focus aimed at understanding how the novice participants of the study read and interpreted the PCN that maintained the ongoing practices of their communities of practice.

Access by novices to the community of practice and all that it entails is posited as crucial to legitimate peripherality. However, legitimate peripheral participation for newcomers is seen as problematic due to a range of issues in terms of accessibility to resources, expert members of the community, artefacts and opportunities for participation (Lave & Wenger, 1991). The findings of the study affirm the claims made by Lave and Wenger (1991) that competence in using the artefact opens up accessibility to various forms of participation. The findings of RQ 1 specifically illustrates that the encounter of the novices with the PCN in the classroom was decontextualised whereas the actual reading of the PCN and other workplace literacy practices in the hospital setting were dynamic and driven by context. Findings of RQ 1, specifically, the accounts of the participants' personal experiences shed light on the various complexities of using this workplace text for a novice user. A significant finding of RQ 1 also pointed to the existence of a gulf between classroom literacy practices and the highly contextualized, authentic PCN of the workplace.

Nevertheless, another key finding of the study demonstrates that the workplace in itself is a field of situated resources for learning of the novices. The findings illustrate the learning curriculum is co-constructed through the increasing participation framework and interactions between the expert members of the CoP and the novices. This point became evident through the findings that emerged from the analysis of four literacy events: Change of Shift, Clinical Teaching, Medication Serving and Passing Report. The expert-novice interactions were specifically significant in the findings that emerged. The analysis illustrated both the complementary and scaffolding roles played by these literacy events in facilitating the novice participants' reading and interpreting of their workplace text. The findings also show that although non-participation in CS only involved receptive knowledge, their peripheral participation had sensitised the participants to aspects of professional practice and it prepared them for the role that the novices have to play.

The findings revealed that the experts played an active role in guiding the novices' learning. The expert-novice interactions specifically played a crucial role in facilitating the novices in their reading and interpreting of the PCN. This became clearly evident when the tutors made the most of contextualised didactic exemplars in everyday practices as they emerged during the peripheral participation of the novices in Medication Serving and Passing Report. Another key finding revealed that the learning of the novices was also staged by the institution of the Nursing College and the Teaching Hospital through their tutors and other informed individuals who, as Campbell (2004) describes are the "bearers of this cultural heritage and professional knowledge" (p. 648). Findings from Passing Report and Clinical Teaching revealed that these events were pedagogical devices. Findings from Passing Report revealed that both proficiency in reading the texts of the PCN and fluency in the spoken

discourse of the community are deemed crucial in facilitating interpretation of data obtained through their reading. Additionally, learning to speak as experts is also posited as crucial in facilitating the novices move from peripheral participation to the core practices of their CoP, which Lave and Wenger (1991) assert accords a newcomer "ways of belonging" (p. 35) into the community. The findings that emerged during the analysis of these pedagogically instituted mechanisms revealed the intervening role of the experts in making visible to learners the things they have to learn and the way they construe information. Findings from all four literacy events showed that community of practice is an important element in the notion of learning to interpret the PCN, the professional workplace text hospital setting. It revealed that interpretation also included ways of using literacy in that the use to which literacy is put constrains the way a text is read and how it is located.

Research question two investigated how novice year-one student nurses interpreted the PCN as they were considered novices at the peripheries of their CoP situated at their workplace in a teaching hospital. The findings from MS reveal although interpretation of the PCN is the focus of research question two, an important feature that emerged during this investigation is one of training and the pedagogy that takes place within the clinical setting that facilitates the sense making of the PCN. Another emergent finding from the investigation of research question was that as the participants became more engaged in the centripetal activities of expert practices, they developed various interpretive strategies to help them make sense of the objective data from the various text types that constituted the PCN.

Unlike the findings from participation in CS, the findings from MS show a fuller range of movement of the novices from the periphery toward partaking in the

core activities of their CoP. A number of features of MS that provide insights in answering research question two are presented in the next segment:

1. MS involved reading and interpreting the PCN. MS had the element of training for year-one student nurses. Specifically MS revealed closer insights into text processing skills that promoted interpretive skills of one specific, namely the Kardex, a non-linear text type that constituted the PCN.
2. There was urgency and the need for the novices to move into the core practices of their CoP. With the CS the novices could remain passively in the periphery. CS, along with the PR that the Institute of Nursing added on, served merely as a pedagogical device. CS was not of immediate relevance to year-one student nurses. MS, on the other hand, needed to be performed immediately, in year-one semester one. MS saw the novices involved in learning to read one specific, non-linear text type, interpret the data in the Medication Kardex to carry out the action of serving the prescribed drugs, just like the expert staff nurses.

The findings of RQ 1 and RQ 2 as well as research literature illustrates that skilful use of the PCN by newcomers in the context of this workplace is fundamental in the continuity of the CoP. The issue of what interpretation means in this context (a hospital) and with these students (First Year Nursing novices) has been the major focus of this section. One very obvious conclusion is that interpretation is not what it means in the generic sense, as spelt out in the skills-based approach to Reading. A number of aspects of interpretation emerged from the analysis of data:

a. Interpretation is related to practice i.e. what the experts (nurses and doctors) expect the novice to *do.*

b. Interpretation is also related to the emergence and evolution of 'patient script' in the novice

c. Interpretation is that which emerges in the student as a result of the efforts of expert nursing tutors who demonstrate the meaning of what is written down by showing the equipment and illustrating the meaning of the words in the PCN.

d. Interpretation of Medication Kardex also involves knowing what an accepted benchmark of MS is. Sense making also includes seeking immediate clarification over discrepancies with other informed individuals.

e. Interpretative skills involved in reading the Medication Kardex also involved recognising omissions and errors due to an oversight on the part of the Kardex writers.

f. Interpretation of the Medication Kardex entails drawing upon and integrating pharmacological knowledge they had learned in the classrooms into practice.

Chapter 5 Conclusions and Implications

Introduction

This final chapter begins with the summary of the main findings of the research questions of the study. The findings presented here are informed by the theoretical framework of Lave and Wenger's (1991) theory of Situated Learning of Legitimate Peripheral Participation. Perspectives of the New Literacy Studies researchers (e.g., Barton & Hamilton, 2000; Papen, 2005; Street, 1984) on literacy and literacy practices also contributed in the analysis of the findings which focused on examining how the participants of this study learned to read their professional workplace text: the PCN. Specifically their perspectives provided the lens to examine reading in the context of the social and cultural practices in which it is situated and not as a set of decontextualised discrete skills. The chapter then ends with theoretical and pedagogical contributions followed by recommendations for further research.

Summary of Findings

This study attempted to explore the learning experiences of year-one student nurses' initial transitioning and participation in their workplace CoP in relation to issues related to reading and interpreting their professional workplace text: the PCN. I used two research questions to frame this study:

RQ 1: What are the experiences of Year-one student nurses when using the Patient Case Notes during their initial transitioning into the workplace?

RQ2: How do Year-one student nurses interpret the Patient Case Notes during their Clinical practice at the workplace?

Participation is an official requirement of workplace learning. The findings of the study are presented as accounts of novice participants' initial experience of their

transitioning into their community of practice (CoP). Given this, I used Lave and Wenger's theory of legitimate peripheral participation as my theoretical framework to investigate the participants' initial experience of using their professional workplace text. The findings also report the orientations that the novices went through to embrace the literacy practices of their CoP, as peripheral participants.

Research question two focused on the main phenomenon that was being investigated, namely, how year-one student nurses learned to interpret their professional workplace text. The findings revealed the peripheral participants learning to tap on the available resources afforded by the workplace to facilitate their reading and interpretation of the PCN. Their resources for learning included the social and cultural context in which the literacy practices were embedded, the pedagogic responses of experts, the guidance of tutors which eventually enabled them to formulate their own individual performance strategies that facilitated their reading. The findings also captured the participants' engagement and their individual learning trajectories. These moves in their peripheral participation occurred as the novices found themselves drawn into the intense centripetal activities of expert practices of their community of practice at the workplace. The finding affirms Billett's (2004) assertion regarding the nature of participation in workplaces. Billett claims that context alone cannot determine issues of engagement and learning. Engagement in workplace practices, according to Billett (2004, p. 319) is also determined by what he terms as the "individual agency and intentionalities" more so than just the, "regulation of participation" (p. 319). Evidence of individual agency of the participants was specially illustrated when some of them began to use their own initiatives and devices such as: constructing mind maps, note taking to facilitate their reading and sense making process.

Peripheral participation. A significant finding of RQ1 from the transitioning phases of the novices into their CoP revealed that they had encountered various text complexities which had caused them substantial emotional challenges. Specifically, the findings from the participants' accounts of their individual experiences implied that the multiple-text of the PCN was highly contextualised. The findings traced the anxiety and frustrations they experienced to several structural traits of their professional workplace text, specifically when they had to use the PCN in order to participate in the central literacy practices of their community. The text complexities ranged from locating text types within the composite of texts types in the PCN folder to the issues related to intertextuality, decoding discipline specific terminology and interpreting the multimodal nature of the text types

Research on peripheral participation of newcomers into their CoP and workplace learning informs that novices face a range of challenges on transitioning into their workplace communities of practice (Folinsbee & Hunter, 2002; Lave & Wenger, 1991). In light of this, facilitating transitioning in nursing has also been identified as crucial (Kralik, Visentin, & Van Loon, 2006).

The overall findings of RQ1 highlight in particular the high level of anxiety experienced by the novice nurses on entry into their workplace CoP. The anxiety was attributed to textual practices arising from their workplace text. The findings implied that legitimate peripheral participation for the novices was not going to be a smooth transition especially if they cannot apply their classroom learning of the PCN effectively to engage in workplace literacy practices.

An emergent finding of RQ 1 also revealed that during their classroom learning, the participants had been exposed and had even learned to construct crucial text types which comprise the PCN folder (e.g., Medication kardex, Observation

charts). Thus, it can be implied that the participants knew what reading the Kardex involves or why it needs to be read in a particular way. As the findings show, in spite of the planned and sequenced classroom learning of selected text types of the PCN, the decontextualised nature of the learning had raised a certain degree of anxiety in the participants. The findings of both RQ1 and RQ 2 reveal that effective transferability of the learning had not taken place.

The participants' initial difficulty in using the PCN pointed to the presence of a gap between their in-class literacy and workplace literacy needs (Trigwell & Prosser, 2004). The findings also implied that the gap between their in-class literacy and workplace literacy had impeded the active participation of the novices like- Eva, Rul, Ame, Arthi, Yaaz and Hera, "on entry" into their CoP.

Etelápelto, Littleton, Lahti, and Wiratanen (2005) inform that newcomers to workplace communities are often at risk of being "marginalised" (p. 185). Whereas Lave and Wenger (1991) present the view that legitimate peripherality is an "empowering position" as it can both motivate a newcomer to move toward "intensive participation" or keep the individual from "participating fully" (p. 36). The findings from the participants' personal accounts of their participative experience, however revealed their disposition to move on quickly from feelings of anxiety to a state of acceptance of the PCN as their workplace text. The next section illustrates the potential of legitimate peripheral participation on the learning of novice participants at the workplace.

Changing perspectives and learning trajectories. The findings of research question two (RQ2) also supported another theoretical perspective of LPP, namely, "changing perspectives are part of learning trajectories" (Lave & Wenger, 1991, p. 36). Evidence of the participants' "learning trajectories" were captured as the novices

progressed from the transitioning phase to the intensive centripetal practices of their CoP. Findings from crucial literacy events (e.g., Medication Serving) revealed that despite their trepidations, the novices (like Izza and Arthi) even as peripheral participants looked forward to participating in the expert practices of their community such as in Medication Serving. This finding is also in line with Bridge's (2004) contention that transitions involve, "inner orientations" (p. xiii) of individuals as they try to accommodate changes and cautions us not to treat transitions simply as events. On a positive note, Ramsten and Saljo (2012) claim that generally newcomers to a workplace recognise the value of participation in the community and learning. Although findings of RQ 1 revealed that the novices were exposed to the PCN in their college classrooms, the learning was decontextualized; as such they were not adequately prepared for the workplace literacy practices. This finding has implications for re-examining the academic literacy learning that takes place in the nursing classrooms which is viewed as unitary, skills-based and decontextualised. Research literature on the mismatch between the academic literacy taking place in the classrooms of higher educational settings and the demands of workplace literacy is abundant (e.g., Freedman & Adam, 1996; Harran, 2007). Findings from the current study highlight that the expert-novice interactions so crucial in facilitating the learning of the novices in reading the contextualised PCN -- their professional workplace texts.

As the literature posits, my findings also illustrate that the participants were given access to a wide array of complex and mature practices of their CoP. More precisely, they were positioned to observe, record transfusions, assist experts in surgical procedures, and administer medication both parenteral and non-parenteral. As requisite to these observations, the novices have to read their workplace text, chart readings of observations of (e.g., chemotherapy infusions) into appropriate text types

(such as observation charts, input and output charts), give accounts of the patients' health status along with the care delivered to experts and compose nursing plans. Contrary to theory on LPP, however, these nursing practices and the accompanying literacy practices were not "simple nor the costs of errors small," (Lave & Wenger, 1991, p. 110) as these practices are thought to be directly associated with lives of patients. Findings from the various literacy events investigated in the study affirm that peripheral participation motivates newcomers to move in a centripetal direction to the location of the field of the mature community practice (Lave & Wenger, 1991).

To recap, the main focus of the study was on how novice year-one student nurses read and learned to interpret their highly contextualized workplace text (the PCN) and carry out the expected nursing practices of the CoP. With reference to the focus, my preliminary findings revealed that a clinical setting does not set out to teach language skills intentionally to interpret the PCN. Nonetheless, my subsequent findings captured the explicit nurturing of literacy practices during expert-novice interactions during specific literacy events. The findings revealed alert tutors taking advantage of didactic exemplars as they occurred especially during CS and MS as resources for learning. The findings illustrate how the quality of interactions during these instances of situated learning had promoted the individual participants' reading and their interpretive effort of the PCN. Learning in legitimate peripheral participation is situated in trajectories of participation. Briefly it means gaining competence in reading the Kardex has moved the novice participants closer towards their desire to become a full member of their CoP. This finding reaffirms Lave and Wenger's notion that legitimate Peripheral participation is the basis of workplace learning as the next section elaborates.

The potential learning curriculum. In the intense context of hospital settings, the findings from four routine events (CS, PR, CT and MS) revealed the multifaceted ways in which the novices' reading of the PCN was enabled and facilitated. The analysis revealed that the novices' legitimate peripheral status had actually provided them varied situated opportunities to engage in the socio cultural practices of their CoP that were mediated by their workplace text. Participation in MS a routine nursing event is an example of such a learning resource where the participants learned that mere sounding the words on the page of the Kardex does not reflect interpretation. Rather, Papen (2005) states, in the social practice view of literacy (e.g. Barton, 1994; Street 1993) reading is not viewed as a skill but as an activity that is situated in a particular social and cultural context and the purpose is to achieve a specific purpose.

The findings too revealed the expert tutors had used "didactic exemplars from everyday practice," as learning opportunities to acclimatise the novices to the salient features of the Kardex and its reading path. Exemplars that were used included errors, omissions of data, illegible handwriting, acts of carelessness of experts in the Kardex and also misconceptions of the novices regarding medication orders. The findings illustrate that the reading of Kardex requires, specific "interactional rules and particular interpretive competencies on the part of the participants" (Heath, 1980, p.350). The findings revealed that this situated reading during MS not only gave the reading a form of coherence but also had implications for reading and interpreting the Kardex.

The didactic situated exemplars provided the tutors' devices to highlight the point that interpretation of the Kardex also included knowing what an accepted benchmark of MS is. This finding concurs with a point posited by Lave and Wenger

(1991) that the learning curriculum of a community is the "characteristic of a community" and it is "situated" (p.97) and not "manipulated" in the examples inserted. This perspective is also shared by Folinsbee and Hunter (2002) who argue that how a workplace text is "interpreted, produced and learned meaningfully is only in the contexts of its use" (p.3). This finding affirms Street's (2003) ideological view that literacy practices are always embedded in the social practice of institutions. Thus, implying that literacy learning involves the ways in which people address reading and writing.

Likewise, the novices' peripheral participation in CS too is another example of the situated nature of the learning curriculum of a CoP. The findings revealed that peripheral participation seemed to involve receptive knowledge of observing and listening. However, the findings demonstrate that the daily peripheral participation of the novices in this event was in fact a way of learning, as it had allowed them to compile an overall picture of what "...constitutes the practice of a community..." (Lave and Wenger, 1991. p.95). The listening and observations helped them form a better composite picture of the patient script that they were building. The findings of this authentic learning were verified from interview data which affirmed there was a relative ease of interpretation of the spoken texts as opposed to the written texts for these novices.

The findings revealed that the participants' peripheral participation in CS over a duration of time had alerted the novices to a range of learning and to the norms involved in becoming an expert member of the community. Evidence from interview data also suggests that the novices were sensitised to the learning that was presupposed in the practice of CS or the instrumental role that the PCN was set to play in both medical and nursing practices during CS. The findings also implied that CS had also oriented the novices to the textual traits of the PCN, which had caused them anxious

moments on entry into the CoP. Significantly, situated didactic exemplars, the literacy practices, the interactions of the experts around the written texts of the PCN had indirectly paved the way in facilitating the participants' interpretation of the written data from the PCN, in this context.

The expert-novice perspective. The expert-novice notion is a key perspective on learning in CoP. However, in the context of CS, learning to read and interpret the PCN seemed to have taken place without the active notion of the expert-novice relationship or teaching. The findings show some of the novices relying on their own intuitions and agency (Billett, 2004) when they became aware that legitimate peripheral participation is a valuable resource for interpreting their workplace text. The findings in this study revealed transitioning from novice toward expert practices takes place on a trajectory.

Lajoie (2003) advises that trajectories of learning can be made known to novices to accelerate their knowing. The findings of research question two affirms this assertion as it revealed that with prolonged engagement in CS, the novices were motivated to employ their own agency in devising various individual strategies to facilitate their reading of the PCN. This finding affirms another theoretical perspective on LPP that posits that the learning curriculum is a characteristic of a community and is embedded within its organisational structuring resources in the workplace context.

The study also shows PR, a routine event only for participants during clinical practice has a pedagogical element in its design. Unlike in CS, the findings saw the enactment of the expert-novice role where the tutors played a crucial, interactive role in ensuring the data the novices had collected and interpreted from the PCN and various sources are relevant to their patients' health status. The spoken interactions between the tutor and the novices during PR had revealed some possible ways the

novices might have misinterpreted the data they had retrieved on their own from the PCN, CS and CT. The findings also revealed how the tutor had removed some of the misconceptions of novices such as Ame and her partner, regarding the concept of TPN and the Trumo machine (see Ame's participation in CS). This interaction was crucial in facilitating their sense making process.

The findings show the novices were not alone in the way information from the PCN was construed. The expert members played a significant role in making the novices aware that earlier sources of data from their classroom learning and their own reading were merely a receptive process of meaning making. Due to their presence in CS and (or) CT, some novices (e.g., Rul), were confident in presenting their data. However, as the analysis reveals, the novices were not competent with the nuances of the language of medicine.

The findings illustrate expert members of the community had made visible the things the novices need to learn such as the tool of language specifically language of medicine that was needed to participate in their interactions with members of the CoP. The findings noted that during CS, PR and in CT, the interactive and interpretive talk in English related to patient care appeared to be an indicator of legitimate peripheral participation (Lave & Wenger, 1991). The findings specifically show how intervening, and the tough interrogative role of the experts during PR, fine-tuned the participants' initial talk to an evolving and viable interpretation of data they had obtained primarily from their own reading of the Case Notes.

MS offered insights into the novices' interpretive effort of reading the Kardex. Reading and interpreting the data-filled Kardex is a pivotal literacy event in nursing. During MS the novices had to read the Kardex to assemble the medicine and carry out the action of serving medicine immediately as experts. The findings on MS offered

insights into the training component and the pedagogical competence of the expert tutors, in using this opportunity to move the novice into the centripetal practices of the CoP. Most significantly the findings on MS specifically revealed the concerted training effort of the expert tutors and alert staff nurses to help the novices' interpretive effort of reading the Kardex. The findings show expert members using for example several contextualized, didactic exemplars of i) sources of misinterpretation of data, ii) anomalies related to illegibility of signatures iii) poor handwriting and iv) omissions and errors by writers of the PCN, to reinforce learning to read and in interpreting salient elements of the Kardex.

The findings also showed the interrogative style of experts around the text during this situated activity was two- fold. First, it acted as a gauge to the novices on the gaps in their reading and sense making process. Second, the findings point to the kind of reading- speed, efficiency and automaticity demanded of the novices when reading texts in facilitating their legitimate peripheral participation into their CoP. This affirms the explanation by Ramson and Saljo (2012) that artefacts such as texts, are givens in workplace communities that members need to master and put into practice.

Significantly, MS shed light on understanding how the experts facilitated the novices' sense making of the Medication Kardex. As Tierney (2009) suggests, interpretation or sense making can never be "precise" but we can construe how individuals braid together some themes to inform their meaning making. In the context of MS, too interpretation involved weaving together several strands. The findings show it involved for example knowing the reading path of the non-linear text, according to the values of the different set of data. The reading path gives certain ordering among the various parts of the data, in relation to the eight principles of MS,

making some parts more worthy of attention. Hence interpretation in this context entails knowing in what order to read this data. The findings suggest interpretive skills in reading the Kardex also involves recognizing what salient features of the Kardex have been omitted and seeking immediate clarification over discrepancies and misconceptions from informed individuals.

Implications for Curricular Practices and Pedagogy

The study sought to provide evidence of how year-one novice student nurses read and interpreted their complex workplace text: the PCN during their initial clinical practice in the context of a fast- paced large teaching hospital. Additionally it also sought to investigate the novices' preparedness for using their workplace text and their learning experiences during the transitioning phase on entry into their workplace CoP.

Findings from numerous studies (e.g., Hodkinson & Hodkinson, 2004; Lave & Wenger, 1991) reveal some of the enduring challenges of peripheral participants were related to issues concerning for example identity formation, power differentials, theorising about learning during their workplace learning. Evidence of some of these issues was also captured especially through my interviews with the participants. In this study, a key challenge the novices faced on entry into their workplace however was related to using their professional workplace text and in engaging in the literacy practices of their CoP to retrieve information on patient care from the PCN. The source of the problem emerged from being unable to use the highly contextualised workplace text: the PCN with speed and efficiency.

The findings from first research question that focused on understanding the novices' experiences of using their workplace text during clinical practice indicated the presence of a gap between their in-class and workplace literacy practices. This finding in particular had several implications for curricula practices for novices'

transitioning into their workplace communities of practice for learning the practice of nursing and in acquiring the literacy practices of their community. The following paragraphs report on these implications.

The findings also demonstrate that the participants experienced a culture shock on entry into their CoP at the workplace. Much of their anxiety was related to the fact they were unable to use the contextualised authentic text types of the PCN that they encountered in the workplace with speed and efficiently. It is suggested the novices need to be exposed to what is coming. For example, either excerpts from the PCN or replications of materials such as that occur need to be used during their classroom learning. In doing so, some of the real- life textual traits of the PCN that the novice students will encounter in the real workplace context – for example their lack of familiarity with abbreviations, poor handwriting of doctors, anomalies, truncated writing, locating various text types within the folder of the PCN, can be anticipated. Thus, the novices can be prepared for workplace learning.

Unfamiliar discourses and literacy practices as the findings revealed had posed a silent unnerving effect on many of the participants. This finding of the study suggests ways in which both teaching and the curriculum design of year-one of the nursing course can be revised to improve the quality of student nurses learning experiences specifically at the point of transitioning into their community of practice to be meaningful.

A number of findings seem to suggest in themselves ways to improve pedagogy. For example it was found Medication Serving which included two features – urgency and commitment to the profession – was successful in engaging the novices' legitimate peripheral participation in relation to specifically textual and literacy

practices that underlines this nursing practice. It is suggested where possible these two elements of urgency and commitment be included in the pedagogy.

A significant finding emerging from this study has implications for an ESP based course to be introduced into the curriculum of year-one student nurses rather than their current general proficiency course that focuses on discrete skills of reading, writing and speaking. During Passing Report (PR) the participants learned to present their oral report based on their reading of the PCN, before their tutors. The findings from PR revealed gaps in the novices' reading of the PCN. The oral presentation by the novices on their patients' health status and care delivered to patients functioned as a form of assessment. Tutors through their interrogative style were thus able to assess whether the large amount of data the novices had extracted and interpreted from the various text types in the PCN and other sources were relevant for patient care.

The findings revealed that the tutors not only assessed the interactive and interpretive talk during PR for content but also for the language of content delivery. An emergent finding during the participants' spoken interactions during PR revealed some possible ways of misconstruing abbreviations and terminology. The findings show the expert tutors adopting a relentless line of questioning to provide the novices the target language of medicine, to clear misconceptions and facilitate their sense making process. This then emanates a pedagogical and curricular concern.

A presupposition for the various kinds of difficulties faced by the novices was attributed to the nature of the text difficulties, in terms of language and the level of content knowledge and terminology. However, the findings from PR demonstrate that somehow the difficulty faced by the participants in this context emerged partly from not having the tool of language of specificity to demonstrate their legitimate peripheral participation in their community. The finding that emerged from several other didactic

examples during CS and MS demonstrates that novices have specific linguistic needs when they enter their workplace CoP, for interacting and interpreting the various types of texts of their professional fields.

The findings of this study have strong implications for an ESP based course to be introduced into the curriculum of year-one student nurses rather than a general English course that emphasises proficiency of discrete language skills. Claims that having a command of specialised language (Peters & Fernández, 2013) could form a strong incentive to overcome challenges that emerge from bridging any gap between their in- class and workplace literacy practice, deserve merit. It can be argued that in the context of this study an ESP based course that facilitates transfer of learning when the novices enter their workplace could promote an ease of transition and entry into their workplace communities of practice and could also likely support their quest for identity formation.

This chapter brings to a close my entire thesis. I have, therefore attempted to find closure to the problem I stated and the research questions raised in Chapter One. Lave and Wenger's Theory of Legitimate Peripheral Participation is supported by my findings and to what extent it is found wanting in some instances. This chapter summarises the main features of the findings reported in detail in Chapter Four using the research methodology outlined in Chapter Three. Based on these findings and the literature I became aware of through this thesis, I have inferred some implications for curricular practices and pedagogy as well as for theory. I have also made some recommendations for future research.

Implications for Theory

The findings of RQ2 in terms Lave and Wenger's (1991) theory shows how experts take novices under their direct supervision and provide direction so that

novices learn their target literacy practices. The LPP theory supports the novices' learning in the centripetal practices of expert members. This study provided the evidence of how these practices unfolded through their close guidance. The findings from the study supports Lave and Wenger's theory of LPP that novices in a new context learn effectively in the centripetal practices of experts who are informed experienced individuals. From an educational point of view my study refracts the different dimensions of interpretation of a pivotal workplace text within the context of a workplace, namely a hospital setting. Thus this study contributes to the literature on transitioning.

Recommendations for Further Research

The present study involved eight novice participants who had transitioned into their workplace Community of Practice at a premier hospital setting for their first clinical practice. My initial findings revealed the novice participants had faced other challenges on entering their workplace due to contextual factors. These factors included their status as novices, and those related to their accessibility to the workplace such as to patients or the PCN, not so friendly expert members of the varied communities of practice at the workplace. These factors did not carry the notion of "belongingness" and their learning to establish an identity of themselves.

However, as the main focus of this study was to investigate how the participants read and learned to interpret their workplace text during their clinical practice, this qualitative study only focused on how their interpretive efforts of the PCN was facilitated. Hence these findings cannot be generalised to a large population sample. Future studies may use quantitative designs and with a larger sample to find out other factors that might affect the learning of their professional text: the PCN in the hospital setting.

The significance of the PCN for both staff nurses and novice student nurses in ensuring the continuity of safe care for patients has emerged from the review of literature. A growing body of literature has also revealed that transitioning from institutional settings into professional workplace settings for novice students is never a smooth process. Researchers (Dressen-Hammouda, 2008; Swales, 1990) suggest that a way of gaining accessibility into a closed CoP is through learning to master expert workplace literacy practices. Yet, there appears to be only a cursory mention of studies that investigated the PCN in training programs for novice year-one student nurses' transitioning from their classroom setting into their workplace for their initial clinical practice.

The findings of this study identified several textual traits of the PCN that had posed significant challenges to the novice student nurses in their effort to learn the textually mediated literacy practices of their discourse community at their professional workplace. Further research is necessary to identify other conceptualisations in this area that can illuminate the process of novices' learning at the professional workplace.

To conclude, the focus of the study was on how the novice participants learned to read and interpret their professional text: the PCN at their workplace during clinical practice. Reading and interpretation in this context for this cohort of novice year-one student nurses involves understanding and applying information that is usually minimalistic and comes primarily in the form of hand writing of doctors and other expert members of the various workplace Communities of Practice. The findings inform that novices' reading and interpreting and applying information appropriately were facilitated through:

- pedagogical devices (e.g., Passing Report, Clinical Teaching) instituted The Nursing College and the Teaching Hospital

- the pedagogic competence of expert members of their community of practice at the workplace (tutors) and other informed individuals (e.g., Staff nurses, Nursing Sisters, Matrons, Doctors, Dieticians) in the clinical setting
- the expert-novice interactions during the legitimate peripheral participation in routine nursing practices of expert members such as in Medication Serving
- the novices' own learning strategies such as silent reading, listening to talk and interactions of expert members, mind mapping and making intertextual connections
- shared knowledge between the novices and their peers
- the learning that took place in the classrooms and skill laboratories of the Nursing college

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