



**Becoming a Member of a Nursing Community of Practice:
Negotiating Performance Competence and Identity**

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1.Introduction and Background

Existing literature on new graduates’ transition from ‘student’ to ‘practitioner’ in the workplace is dominated by two main themes: perceptions of incompetence (see for example (Brakovich and Bonham, 2012; Craig, Moscato and Moyce, 2012; Lima *et al.*, 2014; Thanomlikhit and Kheawwan, 2017); and tales of difficult experiences (see for example (Al Awaisi, Cooke and Pryjmachuk, 2015; Charette, Goudreau and Bourbonnais, 2019; Cleary *et al.*, 2013a; Hu *et al.*, 2016; Laschinger *et al.*, 2016; Parker *et al.*, 2014; Pennbrant *et al.*, 2013). Newly graduated nurses’ (novices) transition has been described as happening in progressive stages filled with shock and crisis, culminating in their eventual configuration into the system somehow (Benner, 1984; Cohen, 1981; Duchscher, 2008; Kramer, 1974).

In Singapore, novices reported having difficulties working with experienced nurses (Cleary *et al.*, 2013b; Leong and Crossman, 2016), facing complex challenges and feeling traumatised and burned out (Ang *et al.*, 2019; Kowitlawkul *et al.*, 2019; Lim, Hepworth and Bogossian, 2011; Tan, Lopez and Cleary, 2016). There was an average attrition rate of 6.0% from 2013 to 2018 among Singapore nurses (Ministry of Health, 2019), although the attrition rates across all jobs in Singapore in the same period was 1.7% to 2.0% (Ministry of Manpower, 2019).

Research literature exploring novices’ transition largely appears to be underpinned by a fixed model of a competent identity that an individual nurse either possesses or does not. The implication

being that competence has an objective existence independent of context. Furthermore, the research literature appears to portray novices and other members largely as passive in the construction of the idea of competence and of the system in which they are participants. The focus on perceptions of competence and experience of the novices has not provided a great deal of insight into understanding the mechanisms that facilitate this eventual configuration into the system. This study aimed to explore this starting with the following research questions:

- What are the characteristics of the clinical Community of Practice?
- How do novices and nurses negotiate their participation?

2. Methods

2.1 Design

This study used a focused ethnography. In a traditional ethnographic approach the researcher is to be immersed in the social context for a long time to facilitate the construction of meaning of observations within the interaction of the researcher and participants (Hammersley and Atkinson, 2007; Knoblauch, 2005; Roper and Shapira, 2000); Focused ethnography is an applied and pragmatic form of ethnography that differs in that it explores only one particular problem or topic and has a focused field of enquiry. The background of the problem is studied and based on the literature a theoretically informed problem-focused research question is formulated before going into the field for short term and targeted data collection structured around the study topic (Bikker *et al.*, 2017).

The first author has a nursing background and is a Nurse Educator in Singapore and taking a social science researcher position in this study, she is both an insider and an outsider. This insider familiarity helps understanding (Bonner and Tolhurst, 2002), but at the risk of “going native” (Hammersley and Atkinson, 2007). The first author managed her “involvement and detachment” (Gobo and Molle, 2017, p8) by engaging in iterative and reflexive processes of data collection, analysis and discussions with the other authors on the research team.

2.2 Theoretical framework

Communities of practice are groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly. Community of Practice (CoP) as a social learning theory focuses on how individuals engage with and learn from one another in their negotiation of membership, with mutual engagement, shared repertoire and joint enterprise as the integral elements. Members participate in activities and can clarify, define and exchange practice with a common purpose, while the resources employed in their meaning negotiation such as routines, words, tools, stories, gestures, and symbols are the shared repertoire (Wenger, 1998). Nurses working together in a clinical ward can be analysed as a CoP (Seibert, 2015, p70).

The concepts of Regime of Competence (RoC) and Modes of Identification (MoI) from COP Theory were adopted to form an analytical framework (see detailed deliberation in the first author’s thesis (Chen, 2020), as they are the core concepts reflected in the research questions: the characteristics of the clinical ward and the ways of the members negotiate their participation. RoC

is a set of rules, regulations and practices that differentiate one CoP from another, comprising of competences as the indicators of membership (Wenger, 2010).

The concept of MoI describes the ways in which members participate and identify (or not) with the RoC. MoI has three integrated ideas: engagement, imagination and alignment (Wenger-Trayner and Wenger-Trayner, 2015; Wenger, 1998). Engagement means members do things together. Imagination means the images members have constructed about self, others and the social context, which helps them to locate their position and identity in the CoP and beyond. Alignment describes how members negotiate meaning and coordinate their engagement (Wenger-Trayner and Wenger-Trayner (2015).

Kubiak (2012) argued that “identification” indicates the temporal status of identities and the ongoing formation of an individual’s identity. Therefore, members’ negotiation of participation can be viewed as on-going trajectories of identification, where engagement, imagination and alignment feature in their daily interactions (Figure 1). Engagement, imagination and alignment are active in different combinations when members negotiate meaning and participation, and produce temporal identities (Wenger-Trayner and Wenger-Trayner, 2015).

‘Insert Figure 1 here’

2.3 Setting and Participants

The ward where observation was carried out is typical of 81% of the wards in government supported tertiary hospitals in Singapore (Ministry of Health, 2018), admitting adult patients with medical and surgical conditions. There were over sixty qualified nursing staff with four novices in the ward. Newly graduated nurses with less than one year of working experience in the same ward were considered as novices.

The selection of a ward with novices for an in-depth understanding of the participants was purposive (Lincoln and Denzin, 2000). A theoretical sampling method was used to progressively select the clinical occurrences to observe on the basis of their relevance to the research questions (Gobo and Molle, 2017). Participants’ profiles are shown in Table 1 and Table 2

‘Insert Table 1 and Table 2 here’

2.4 Ethical Considerations

This study was approved by the ethics committees of relevant organisations. All novices and FGD participants signed written consents. Verbal consent was obtained from patients and other personnel whenever appropriate. Patients were in the background of the analysis of the nurses’ interactions. The participants’ autonomy, anonymity and right to withdraw were assured (Speziale and Carpenter, 2011). All names quoted in this report are pseudonyms. There was no instructional or employer relationship between the researchers and the observed nurses.

2.5 Data Collection and Analysis

We engaged in iterative processes of collecting and analysing data (Hammersley and Atkinson, 2007). Data was collected through more than 100 hours of fieldwork over four months on different days and at different shifts. The first author followed the nurses in their activities. Timely fieldnotes, reflective diaries and memos were written. FGDs were audio recorded with permission and recordings were transcribed.

Through general observation and the initial analysis, the patterns of activities were identified. Ideas and insights emerged through our repeated reading of the field-notes, diaries, memos and FGD transcripts, referencing the literature and reflecting on the ethnographer's field experiences. From the activity patterns, the concepts of Prized Tasks, Relational Position and Dimensions of RoC were conceptualised (refer to findings). More observations were carried out to understand the interrelations and dynamism of these concepts in the negotiation of participation. The authors' understanding of the nurses' participation were checked through repeated observations, chats with the nurses and researcher cross analysis.

3. Findings: Concepts generated in understanding CoP members' participation

The research findings reported here focus on the way in which the members of the CoP construct performative competence and identity through their interaction during practice. The researchers identified a few key concepts that together comprise a Participation Matrix. Each of the concepts is explained below.

3.1 Prized Tasks

Prized Tasks are those which CoP members focus their attention to make sure they completed. Members tend to scrutinise one another on these tasks. Serving medicine (the nurses use this term for the administration of medicine, see Box 1) is one such Prized Task, as nurse Zana shared:

“Patients can *not* bath, but I cannot *not* (stressed) serve them medicine.” (FGD 3)

Box 1: Serving medicine

Scenario 1

Eva and Patricia (supervising) were serving medicine when an elderly patient called for help to change her pants. “Wait, ah Poh (‘granny’ in Chinese dialect), we are serving medicine now.” Patricia told the patient while signalling the Nurse Assistant to help. At that time, the Nurse Assistant was bathing another patient... Later, the Nurse Assistant helped this patient to change... (fieldnote 19)

Scenario 2

Occasionally, Helen asked David to do something while he was serving medicine... “David, have you written the date on the IV (intravenous) plug?” ... “Have you done a pain assessment for this patient?”... David told me later that Helen interrupted his medicine round which he prioritised...but he’d better not to offend Helen... (fieldnote 8)

Scenario 3

Joan was complaining to Tina that Ketty had told her off when she was trying to serve medicine along with the first assigned RN... Eva also joined and showed her unhappy face... They seemed to have no choice but to wait, because Ketty is a Senior Nurse and firm... After the first nurse, Joan was the next to serve. Eva could not wait further, she started serving when Ketty had left... (fieldnote 22)

Writing of the patient's record, through which the nurses demonstrate the Prized Tasks they have completed in their shift (Box 2), is itself a Prized Task. During their shift, the nurses keep their records updated, as the oncoming shift nurses obtain information about the patients from reading these records. Aidan shared:

I write at least three times. I make sure the first draft is out early...Some PM (afternoon shift) nurses come very early to read, so I try to give them the information (by writing draft record)...most of us do that. (fieldnote 17)

Box 2: Writing record

Scenario 1:

Eva logged in and out in her attempt to attend to patients and to check the Dr's note and update her record.

"FBC (full blood count) ordered, waiting for phlebotomist."

"FBC done, waiting for result."

"FBC normal, can the patient be transferred?"

On another tag, Eva messaged the care coordinator regarding this patient's transfer to a community hospital... (fieldnote16)

Scenario 2:

...Patricia (supervising) amended David's record. In one place, it was written "BP (blood pressure) high and reported to Dr". Patricia checked the patient's clinical chart and changed to "BP was 158/94 mmHg at 2.10am, no complain of headache". Patricia then told David "You need to indicate the BP reading, patient's condition and what you have done..." (fieldnote 4)

The nurses learn one another's capabilities through their engagement in tasks. Their knowledge of each other can be observed in the way they handover to each other. The RNs demonstrate trust in each other's capabilities where their handover is an exchange such as "Any change?", "No change." (frequently observed and this quote is taken from the handover between Zana and the night shift nurse in fieldnote 20). Or lower levels of trust can be seen in other handovers (for example, Patricia scrutinised David and Alan on the medicine delivery by the medicine pump in Box 3 Scenario 3). If the Prized Tasks were not done properly, the member considered to be responsible might be questioned and suspicion raised about his/her capabilities. Tina shared:

"...after a while, you know whose record (and work) can be trusted and whose you need to check more carefully...it's scary when someone missed something accidentally..." (FGD2)

3.2 Relational Position

The nurses develop the sense of who is who in the community and their relationships to one another. When managing Prized Tasks, they must manage their relationships. We call this element

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3 Relational Position, which is indicative of the perception of each nurse in a particular practice
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5 interaction about their relationship to each other.
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11 Relational Position is not simply determined by seniority, which means the seniors have more
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13 power than the juniors and the juniors must obey the seniors. The scenarios (see in Box 1, Box 3
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15 and Box 2 Scenario 2) describe the interactions happened between the novices and Senior Nurses
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17 like Patricia, Super, Helen, Mabel, Tina and Ketty, and showed that the Senior Nurses were
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19 perceived differently in the minds of the novices, which affected their position taking in
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21 performing Prized Tasks. For example, Novice Eva conspired with Mabel to manage their power
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23 relation to Super (Box 3 Scenario 2). Tina seemed to be perceived by Eva and Joan to be closer to
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25 them than to Ketty (Box 1 Scenario 3), that influenced their sense of relational power and position
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27 taking in the management of the Prized Task of serving medicine. Therefore, Relational Position
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29 means members had in their minds the different relationships to other members in the community
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31 which give them the relational power to negotiate their positions in their performance of tasks.
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40 Besides seniority, there are other factors influencing their Relational Positions. From their tearoom
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42 activities, such factors were observed when the nurses engaged in small chats, sharing stories and
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44 strategies in their work in different small groups.
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48 Julie and KeKe were sitting opposite to me at the table... RN Diana, a Malaysian Chinese,
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50 was there as well... Julie and KeKe were talking about their work during that
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52 shift...occasionally conversed in Tagalog and I did not know what they were talking...
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Diana kept eating, did not seem bothered... A while later, more nurses came in. RN LuLu from China started her small talk with Diana in Chinese...(fieldnote 9).

The pm duty staff quickly changed into uniform and started reading the patients' records. Some of them were in the conversation of pregnancy, delivery and baby care...Joan has married for one year and said, "I am under the pressure to have a baby, I don't want, I am not ready. The work is so stressful, I can't think of a way out to have baby." Diana said she was not sure where to deliver and how to take care of her baby...as foreigners are only entitled to two months paid maternity leave...she cannot get a long-term pass for her family and baby to stay in Singapore...cannot afford living here either ... Sasha said her Dr advised her to deliver in Malaysia...she could not decide...both were not sure if they could come back to work after their delivery...(fieldnote 9).

The shared experiences of pregnancy and baby care issues drew some female nurses closer than others. The shared language and cultural background brought closer relationships among nurses, who can switch to their mother tongue and immediately distance themselves from the others. Such shared experiences and sociocultural background brought some nurses closer and more willing to help each other out.

In their day-to-day work, when they are trying to manage the Prized Tasks, they must meanwhile manage their relationships. Such abilities demand not only members' abilities to perform the tasks

as required by hospital and professional regulations, but also their abilities to negotiate other contextual aspects. We identified these aspects as Dimensions of RoC.

3.3 Dimensions of RoC

The Regime of Competence in a specific Community of Practice has several dimensions. The most visible and normative being the capability to follow hospital rules and procedures, for example in the way that medicines should be dispensed. However, beyond this the research identified several other Dimensions of the ROC which are important in understanding the nurses' capacities to manage the many Prized Tasks and relationships, that need to be undertaken in the busy, complex, and not always predictable ward environment. The three dimensions are 'Operating Sense of weather and Positioning', 'Manoeuvring Tasks and Time'; and 'Expressing Participation and Acceptance'.

Operating Sense of weather and Positioning (OSP)

This dimension refers to the capabilities of members to assess the ward situation prior to and during their shift and to adjust their participation accordingly. We suggest that this is analogous to predicting the weather. Factors affecting "the weather" include patients' conditions, policies and in particular the Relational Position between the CoP members who are either on or coming on to a shift.

Assessment and relational positioning were evident in all the ongoing care activities. Referring to scenario extracted in Box 3 Scenario 2, Eva and Mabel watched out when working with “Super” (who ‘plays by the rules’); Eva and Joan gathered information to predict the weather condition and get themselves prepared for the next shift (Box 3 Scenario 1); David obeyed instructions from Helen despite feeling interrupted in performing his Prized Task (Box 1 Scenario 2). In another scenario, David was in a dilemma to check the medicine pump or not when taking over from Alan, while Alan brought David to check it upon Patricia’s questioning, both David and Alan assessed the situation and showing their different capabilities in adjusting their positions (Box 3 Scenario 3). These scenarios demonstrate the capability in OSP Dimension affect the nurses’ participation.

Box 3: Handover

Scenario 1

...Eva and Joan were checking the next day roster...they explained to me they had to report for duty very early and be prepared not to have meal break if on duty with ‘Supers’...or ‘Chemicals’ (who tends to mess up things and make everyone busy)... Eva went to ask another nurse about the patients whom she will be in-charge of tomorrow...(fieldnote 18)

Scenario 2

Eva asked Mabel about the patient in bed X.

Mabel: “Why asking? This is not your patient.”

Eva: “You know who is in charge, right?”

Mabel: “Super?”

...Soon, 'Super' appeared and started to check the tidiness of the room. For a while it seemed that everyone was holding their breath and watching 'Super' going around... After 'Super' left, Eva and Mabel looked at each other and looked at me and smiled. (fieldnote 21)

Scenario 3:

Alan informed David of the dosage the medicine pump was running... When Alan was about to move on to the next patient, Patricia (supervising David) asked, "Do you need to check something?" David looked puzzled. "Have you checked the pump?" Patricia added. David said Alan already told him about the pump. "But you still need to check if it is running at the correct dosage!" Paused for a few seconds, Alan brought David to the patient's bedside to check the pump, the patient and the dosage calculation... David told me he felt caught in between, to ask or not to ask, as Alan had told him before the handover that Patricia had already checked the pump... (fieldnote 6)

Scenario 4:

Sarah told Jenny that a procedure was ordered to be done tomorrow for this newly admitted patient. As she moved the cursor (on PC), they noticed there was a pre-procedure medication. Jenny asked Sarah to serve it. "This patient just came and this medicine needs to be counter-checked by another nurse, while everyone is busy handing over now." Sarah negotiated. Jenny then said, "OK lah, fair enough. I'll give it lah." (Lah is a Singlish word used to modify the tone). (fieldnote 18)

Manoeuvring Tasks and Time (MTT)

This dimension indicates members’ capabilities to manage Prized Tasks within expected performance standards. These could be by what time these tasks must be done in a manner acceptable to other CoP members. The nurses’ abilities to manoeuvre tasks and time varies. In handling a Granny’s request and other patients’ care needs when they were serving medicine, Patricia and Eve assessed the tasks, the availability of time, and their Relational Position to the Nurse Assistant and the patients (Box 1 Scenario 1). Sarah negotiated with Jenny to hand over tasks, with the consideration of her Relational Position to Jenny and the situation (Box3 Scenario4). Eva juggled Prized Tasks of writing record, following up with the patient’s FBC test and other care tasks (Box 2 Scenario1). David tried to manage his Prized Task of serving medicine while having to do tasks prioritised by Helen (Box1 Scenario2). The ability to manage complex tasks within limited time is highly regarded by members, as Eva shared:

“...there is one nurse...go to patient...get everything done...the priority is really in order, so that one I feel like “wah! I really respect this person trend of thought, very systematic, very organised. She knows what she has to do what she needs to do first.” (FGD2)

Expressing Participation and Acceptance (EPA)

Patient care is continuous and the nurses need to understand what happened in the previous shift. This requires them to express their participation, to understand the expressions of other members, and to negotiate and reach acceptance of one another’s participation.

Eva tried to record the tasks she has done in managing the Prized Task of a patient's transfer to a community hospital (Box 2 Scenario 1). The FBC test was identified as a Prized Task within the more complicated Prized Task of that patient's transfer. This is just one example of the complexity of the Prized tasks. Such a complex Prized Task consists of many smaller Prized Tasks which the nurses learnt to identify and then manage through their work. Timely updating such Prized Tasks have been carried out in the electronic medical record for the oncoming nurse to know before the face-to-face handover is therefore important.

Knowing one another's abilities in record writing and reading requires learning through their encounters and a fair bit of mutual trust. David's record was amended by Patricia (Box 2 Scenario 2), there were the elements of assessing David's ability and knowing the oncoming nurse's ability in understanding the patients' medical record and their Relational Positions. As Tina shared:

“If I know the next shift is someone new, I make sure I write in detail, as I am worried they might not understand and miss things out.” (FGD 2)

The nurses learnt and understood their own abilities and their colleagues' abilities in nursing care, record writing and record reading. With such understanding, they managed to write based on the perspective colleagues' abilities coming on duty and to read based on their judgement of the off going colleagues' abilities. Any unaligned aspect of nursing care of the patients was then questioned and explained during face-to-face handover.

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3 **4. Participation Space and the Participation Matrix**
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6 Working in this clinical CoP requires the nurses not only to be able to perform tasks but also to be
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8 able to negotiate their participation. The nurses’ decision making and position taking are always
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10 situational and relational. Every decision they make in their participation affects other aspects of
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12 their practice. The Prized Tasks, Relational Position and the Dimensions of RoC, are dynamically
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14 interrelated in the nurses’ negotiation of participation. Individual members aim to create spaces
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16 which give certain degree of freedom in their participation.
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23 We have labelled this negotiated space “Participation Space”. This is the practice space within
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25 which an individual CoP member is trusted to have certain performance competence to carry out
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27 his/her practice in performing the Prized Tasks by other CoP members.
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34 The individual nurses’ Participation Space reflects their capabilities in the Dimensions of RoC at
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36 any moment with whoever they are working with. Together, these concepts - Prized Tasks,
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38 Relational Position, Dimensions of RoC and Participation Space – constitute a Participation Matrix
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40 which explains how members negotiate their participation. The Participation Matrix can be viewed
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42 as a loosely bounded set of dimensions within which the CoP members negotiate their participation.
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44 These ‘rules’ that are applied in this negotiated participation shift within a tolerable threshold of
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46 trust, under different situations between different members. While the dynamic interrelations of
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48 these dimensions, operate to sustain the operation of the ward through the operation of each
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50 members’ duties. The tolerable range is nevertheless a mechanism of control, which CoP members
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to obey, negotiate, violate or punish, to moderate their behaviours, their participation and their membership.

Since all factors are dynamically interrelated, individual members' abilities to participate cannot be reduced to a fixed model of competence following fixed sets of rules and regulations, or through only certain "parts" of the Participation Matrix. Rather 'competence' is a constant negotiation of Relational Position in the context of performance of the Prized Tasks. It is a performance competence showing a particular member's temporary identity at a particular situation. Like all members of the CoP, novices are learning such sociocultural factors and the strategic use of such factors. The Participation Matrix captures the dynamics of their negotiation of Participation Space in their daily practice.

5. Discussion

To understand novices' transition, studies must understand the nature of the community, its members and members' interactions. The analysis in this study suggests a more complex model of transition than the apparently linear model depicting novices' movement from peripheral to full participation as the end goal of "becoming a competent enough nurse", sometimes seen in accounts of this process using CoP theory (Connor, 2019; Hägg-Martinell *et al.*, 2016; Molesworth, 2017; Thrysoe *et al.*, 2012). Furthermore, the study addresses some of the earlier critiques of COP [see for example (Billett, 2013; Eraut, 2002; Eraut, 2011)] by highlighting intentionality in the negotiation of participating space that is influenced by individual members' subjectivity. As shown in this study, the nurses participated and negotiated their participation with flexibility. Their

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acceptance of a tolerable range of practice differences gave room for new ideas and individual subjectivity in practice. But participating spaces were recognised as boundaries by relational position, even if the boundaries and dynamics were shifting as evidenced by episodes of unhappiness when the tolerances of practice were unacceptably challenged according to perceived relational positioning.

This study adds empirical evidence to the understanding of the mechanisms of transition. Firstly there is more to the ‘common purpose’ of a ward nursing CoP than the ‘correct’ application of hospital rules and procedures as manifest in the management of the Prized Tasks in the nurses’ daily work. Secondly the distinction between ‘Novice’ and ‘Expert’ is not static. Different nurses on duty on different shifts exposed the dynamism of members relational positions. They were observed learning how to position themselves and negotiate their Participation Space intentionally and actively. The Relational Position shows the dynamics of relationship and power among members and its effect on their participation.

The Participation Space each member negotiated gives the shape of a member, depicts his/her negotiated competence and represents who he/she is in the CoP. The Participation Space is negotiated within boundaries or relational positioning. The relational positioning e.g., ‘Newly qualified’ and ‘Senior’, is not the only determinant of Participation Space. Also important are the additional Dimensions of the RoC: ‘Operating Sense of weather and Positioning’, ‘Manoeuvring Tasks and Time’, and ‘Expressing Participation and Acceptance’. A third finding about ‘transition’ is that is also affected by the individuals’ capability in these dimensions.

Fieldwork of this study was carried out for regular short periods for only four months. The focus of investigation was how the Community of Practice as a whole functioned in relation to the transition of newer members rather than on any individual members including those defined as 'novices'. It might therefore be the case that there might be more nuanced elements of the nurses' practice and negotiation of participating space and identity that would provide greater understanding with more detailed investigation over a longer period. Larger studies with more subjects with a more diverse range of backgrounds and experiences might also enable more detailed exploration of patterns of relations between members experience outside the CoP and their intentional identity and agency within the CoP.

The picture of socially negotiated participation identified in the study may offer pointers for the development of educational and training interventions within the workplace. The focus should be not only on technical competence but also be on encouraging CoP members to explore the Participation Matrix within clinical contexts. It may also suggest the need for nurse education institutions to consider how to prepare soon to be novices in negotiating their participation when they enter their respective workplaces.

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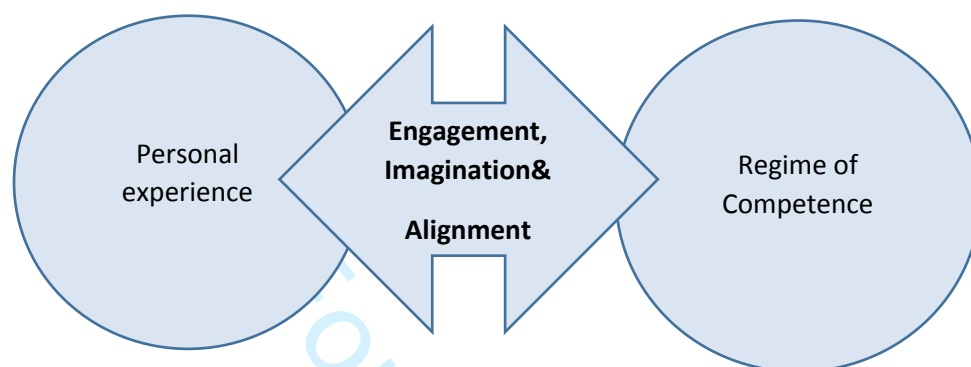


Figure 1: Trajectories of identification

Table 1: Novices’ profiles

Name	Biographic data	Length of practice (months)
David	Male, mid 20s	6
Eva	Female, mid 20s	4
Aidan	Male, early 30s	7
Sarah	Female, mid 20s	7

Table 2: Focus Group Discussion (FGD) participants' profiles

Numbers	Designation	Years of experience
5	Senior Nurse	> 5
3	Registered Nurse (RN)	< 4
4	Novice	<1
1	Nurse Assistant	>1