

Research Article

Process of Ability Formation in a Nursing Instructor Who Continues to Grow through Mutual Interaction: Transduction via Imagination with a Focus on Bifurcation Points

Chihiro Tanaka^{1*} and Tatsuya Sato²

¹Graduate School of Human Sciences Ritsumeikan University, Japan

²College of Comprehensive Psychology, Ritsumeikan University, Japan

*Corresponding author: Chihiro Tanaka, Graduate School of Human Sciences Ritsumeikan University, Japan

Received: March 10, 2024; Accepted: March 15, 2024; Published: March 20, 2024

Abstract

Aim: This study aimed to identify the process through which teacher of nursing build her competence, focusing on her experiences.

Methods: The narratives of a subject with 18 years of teaching experience were analyzed, using the Trajectory Equifinality Approach (TEA). We also noted her “crossroads” experiences and imagined how the educator used imagination to find new dimensions.

Results: At these crossroads, “clashing with students and looking back on their relationships” acted as a trigger. The teacher continued her exploration into the meaning of education while managing numerous issues, drawing on her ideas about “the students’ active careers after graduation” and “the existing situation of students who have limited life experiences” as resources. This process generated a transduction based solution: that a teacher is not a one-way provider of knowledge and information. At such crossroads, she encountered conflicts between social pressures, such as differences in values among the teachers and the complexity of training facilities and social support, such as collaboration in clinical practices and interactions with mentors in teacher training programs, while developing her competence as teacher.

Conclusions: A series of analyses unveiled the image of the nursing instructor who continues to grow through mutual interaction.

Keywords: Nursing instructor, Competence building process, Trajectory equifinality approach, Imagination

Introduction

The basic nursing education in Japan has undergone revisions in nursing education and training systems in response to changes in eras and society. With each revision, there has been an emphasis on improving the quality of nursing education and the quality of nursing faculty who teach. In its “First Report on the Examination of the Way of Educating Nursing Personnel at Universities (2019),” the Ministry of Education, Culture, Sports, Science, and Technology (MEXT) highlighted the importance of ensuring the quality of education. Specifically, this was through the qualitative and quantitative enhancement of faculty. It emphasized the need to consider various measures to enhance the educational system. Furthermore, the Ministry of Health, Labor and Welfare (MHLW) presented qualities that nursing faculty should strive to improve in its “Report on the Future Role of Nursing Faculty” in 2010. These include a human rights consciousness and ethical perspective that respects diverse personalities, including as possessing qualities as individuals and nurses that can serve as goals for students. In recent years, Japan has seen a rapid increase in nursing universities, leading to a diversification in the depth and breadth of experiences among new nursing faculty,

and advancements in the careers of nursing professionals [1]. Against this backdrop, efforts to enhance the capabilities of nursing faculty involved in basic nursing education, including approaches to continuing education and self-improvement, are receiving increasing attention [2].

Previous research on the qualification and competency development of nursing faculty has often focused on specific aspects, such as the educational institutions and clinical settings of nursing faculty [3,4], and factors influencing competency development [5], resulting in partial and fragmented studies. Here, the competency of nursing faculty refers to the knowledge, skills, and personality that support their educational practices. Previous research has not addressed efforts to comprehensively understand competency development, holistically including nursing faculty’s experiences and social backgrounds. Tanaka and Okazaki [6] focused on the experiences of nursing faculty and elucidated the competency development process among expert nursing faculty with over 10 years of educational practice experience. They revealed that the foundation of competency development among experienced nursing faculty lies in their personal lives and passionate commitment to education.

They demonstrated that experienced nursing faculty, as lifelong learners, continue to develop their competency through experiences, including life events. In studies concerning expert teachers, models suggest that competency increases with years of experience, including that expertise may entail losses and gains. Previous research clarified the stage-like process and pathways of competency development among nursing faculty [7]. However, a perspective concerning the nursing faculty's evolution over time has been largely overlooked. It is necessary to elucidate the multifaceted and diverse nature of competency development, including the influence of society and culture over time. Therefore, this study focuses on the experiential process of nursing faculty, utilizing the foundation of cultural psychology and attempting to analyze and examine it through the Trajectory Equifinality Approach (TEA), which considers multiple trajectories and equifinality. Furthermore, this study aims to identify pivotal points in the competency development process of nursing faculty and elucidate how nursing faculty use imagination to discover new dimensions. Zittoun [8] defines imagination as follows (Figure 1). Imagination refers to the freedom to explore alternative and distant experiences from one's own, envisioning one's way of being. This process allows individuals to explore different life possibilities and choices, preparing them to take on social responsibilities combined with TEA. Notably, even if not selected, choices envisioned through imagination strongly persist as guides for future directions and aspirations. This process aids in analyzing the bifurcation points of TEA, visualizing future possibilities. Suppose nursing educators utilize this process to visualize new options and approaches. In that case, it may lead to understanding their capacity-building process, depicting their growth within social and cultural contexts while creating meaning even in various crises. In particular, analyzing the branching points in TEA through the Imagination Loop Model makes it possible to explore multiple options for the future and visualize hopes and guidelines for the future, even for choices that were not selected.

Furthermore, Sato [9] proposed connecting the concept of "Transduction" from the process philosophy of the French philosopher Simondon [10] with TEA. In this study, "Transduction" refers to creating new choices by envisioning solutions through imagination in situations where multiple options exist, as addressed in

TEA. Combining Transduction with Zittoun's [8] Imagination Loop Model can make the explanation more concise. Therefore, this study, analyzes the competency formation process, focusing on branching points from the perspectives of Imagination and Transduction. By utilizing the Imagination Loop Model, we can explore how nursing faculty, at critical branching points in the competency formation process, use imagination to create new choices and envision future prospects and guidelines, even for options that were not chosen. This approach enables us to understand how nursing faculty continue their journey as educators, equipped with future prospects and guidelines, even for options that were not selected. This study will discuss a nursing faculty member affiliated with a nursing vocational school who could visualize Transductive resolutions at branching points in the competency formation process.

Objective

The research aims to analyze through TEA the process by which nursing faculty acquire and develop the competency as educators, encompassing the necessary knowledge, skills, and personal qualities required for educational practice, examining the experiences from which they learn and shape their competency.

Definitions of Terms

Nursing Faculty

Nursing faculty teach nursing at universities, junior colleges, or nursing vocational schools. For the purpose of this study, nursing faculty specifically refers to faculty members at nursing vocational schools.

Experience

The definition of experience is based on Dewey's [11] concept of "interaction between individuals and the external environment." It encompasses all knowledge, skills, and emotions gained through past facts in which educators have been involved.

Competency of Nursing Faculty

Competency is derived from the field of teacher education, explicitly referring to the statement by Fujisawa [12] that includes

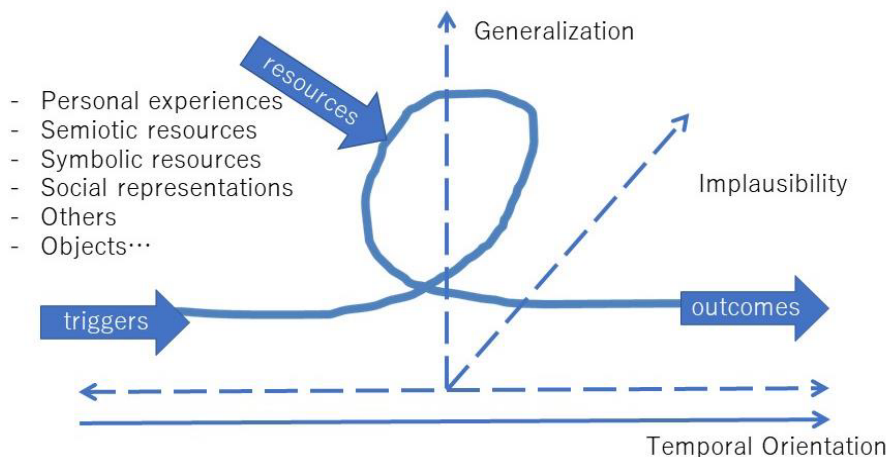


Figure 1: Imagination Loop Model.

“knowledge and values that support teaching activities.” The competency of nursing faculty encompasses knowledge, skills, and personal qualities that support their educational practices.

Research Method

Research Design

This study employs a qualitative research design utilizing TEA as the analytical method.

Research Collaborators

Building on the work of Akita [13] and Tanaka and Okazaki [14], this study conducted a Historical Structured Invitation (HSI) targeting Nursing Faculty member A with over 10 years of nursing education practice experience. HSI involves inviting individuals who have experienced events of interest to the researcher to share their stories. This method differs from traditional random sampling as advocated in conventional psychological research. Random sampling seeks to increase the generality of information obtained from samples by eliminating individual context or history [14]. However, experience is never solely internal to the individual; individuals are inevitably influenced by the place, culture, and history in which they were born and raised [15]. From this perspective, HSI invites collaborators, the protagonists of life, to describe their life processes through TEA, rather than treating them as external samples, thus “inviting” them [16]. This study aims to focus on the experiences of nursing faculty and explore the depth of experiences in how competency is formed through interactions with the external world. In this study, it was considered necessary to adopt the perspective of expertise gained through experience to reflect on and attribute meaning to the educational practices of the research collaborators themselves. Therefore, nursing faculty member A with over 10 years of teaching experience was selected as a research collaborator. Regarding the number of research collaborators, according to TEA, when the subject is a single case, it explores the depth of individual experiences, while four (± 1) cases depict the diversity of experiences, and nine (± 2) cases enable understanding of pattern of pathways [16]. Based on this One research collaborator was selected for this study.

Data Collection Method

A semi-structured interview method was adopted. Interviews were conducted to inquire about experiences that led to the formation of competency through the narratives of nursing faculty’s experiences. The interview content was recorded with the consent of the participant using an IC recorder, and the interviews were transcribed verbatim. Each interview lasted approximately 60 minutes and was conducted one-on-one in a quiet private room to ensure confidentiality. The interviews progressed according to the situation of the research collaborator. The central questions of the interview focused on three main areas: 1) the trajectory from completing the nursing education program to the present day, 2) motivations for aspiring to become a teacher, and 3) experiences accumulated as a teacher that contributed to competency formation. Specifically, inquiries were made about experiences in which the interviewee felt she had grown or encounters with others that were significant.

Data Collection Period

Data was collected between December 2020 and March 2021.

Analysis Method

The analysis was conducted using the TEA analysis, following the steps outlined below:

1. The audio data from the interviews were transcribed verbatim to create transcripts. Focusing on the narratives of experiences that led to the formation of competency in nursing faculty, the transcripts were segmented into episodes. Each episode was then labeled succinctly to represent its content and converted into cards. These cards were organized along a timeline, arranging them in chronological order.
2. Based on the narratives of the research collaborator, the Equifinality Point (EFP) of this study was defined as “continuously maintaining the motivation for competency formation as a nursing faculty member.” In TEA, Polarized Equifinality Points (P-EFP) are set to expand the researcher’s understanding. In this study, “becoming a rigid veteran teacher” was set as the P-EFP because the interviewee used such expression. While EFP is determined by researchers’ objectives in TEA, setting P-EFP makes the meaning of the equifinality point clearer. In this case, while theoretically, the Polarized Equifinality Point (P-EFP) for the Equifinality Point (EFP) “continuously maintaining the motivation for competency formation as a nursing faculty member” could indeed be “losing motivation for competency formation as a nursing faculty member,” setting the P-EFP as “becoming a rigid veteran teacher” indicates that “continuously maintaining the motivation for competency formation as a nursing faculty member” is not simply the absence of losing motivation. By defining “becoming a rigid veteran teacher” as the P-EFP, it expresses a strong intention or desire not to become a rigid veteran teacher, thereby clarifying the meaning of the EFP. After setting the P-EFP, similar events, actions, choices, and feelings were compared to identify the Obligatory Passage Points (OPP), which are the institutional, customary, or resulting essential passage points that most individuals experience, as well as the Bifurcation Points (BFP), where behaviors diverge into various paths.
3. The process leading to the Equifinality Point (EFP) was described, including Bifurcation Points (BFP) and Obligatory Passage Points (OPP), as well as various pathways (behaviors/thoughts), and a TEM (Trajectory Equifinality Model) diagram was created. In TEM, even if the subjects did not discuss it, theoretically plausible pathways that are meaningful to depict were included as dashed lines in the diagram to aim for reflective propositions about ways of living and visualizing supportive interventions.
4. In TEM, the forces that propel progress towards the EFP are termed Social Guidance (SG), while the inhibitory or restrictive forces are termed Social Direction (SD). It was

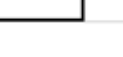
Key concepts	Explanation of Concepts	Representation on the TEM diagram
Equifinality Point : EFP	Concrete Manifestations of Equifinality	
Polarized Equifinality Point : P-EFP	Situations Contrary to Equifinality	
Bifurcation Point : BFP	Points where ambiguity or multiplicity arises	
Obligatory Passage Point : OPP	Points where many people have similar experiences	
Social Direction : SD	Forces that inhibit reaching equifinality	
Social Guidance : SG	Forces that promote reaching equifinality	

Table 1: Explanation of the TEM concept.

considered which of these forces applied, and the factors leading to the choices made in each pathway were categorized based on the similarity of their meanings. A table outlining the conceptual explanation of TEM is provided (Table 1).

- 5. SG and SD, categorized in the TEM diagram, were added, completing the TEM diagram.
- 6. BFP in TEM was further analyzed using the Imagination Loop Model to visualize the transductive resolution.

Reliability of Analysis Results

Regarding the reliability of the analysis results, the researcher received advice from qualitative researchers to avoid common pitfalls during interviews and to ensure that no biases were introduced to the research participant. Additionally, experts in TEA were provided supervision at every stage of the data analysis process.

Ethical Considerations

Ethical considerations were carefully addressed. Before seeking cooperation, the purpose of the study was explained to the participants both orally and in writing. Participation in the study was voluntary, the participants was assured that she could withdraw at any time without facing any disadvantages. Measures were taken to ensure that individuals and schools could not be identified. Permission for audio recording during interviews was obtained, and digital data were securely stored in a designated memory and kept in a locked cabinet. After the conclusion of the study, data were retained for three years, after which audio recordings were deleted and physical records were shredded. Furthermore, the study received approval from the ethics committee of the researchers’ institution before its commencement.

Results

Overview of Research Participant

The participant who consented to cooperate in the study was a female educator with 18 years of experience in educational practice. The interviews were conducted six times, with an average duration of approximately 90 minutes per session.

Trajectory Equifinality Model Diagram for Teacher A

Seven bifurcation points were identified in the competency

development process of Educator A (Figure 2). In describing this process, “ “ denotes the Obligatory Passage Points (OPP), “《 》” represents the Bifurcation Points (BFP), “[]” indicates the context, “《 》” signifies the Equifinality Point (EFP), including the 2ndEFP, “< >” denotes Social Direction (SD), “[]” denotes Social Guidance (SG), and words underlined in bold represent transductive resolutions.

BFP1: Taking the First Step as a Nursing Educator

When Educator A reached her 16th year of nursing experience, she was deeply impressed by the sight of students learning nursing while working at clinical settings. This experience inspired her to take the first step as a nursing educator (BFP1). Although this choice involved changes such as the difference in treatment compared to her time as a nurse (SD), it was not a decision made solely based on her feelings. The support of her family (SG) encouraged her to take that step, leading her down the path of “engaging as a full-time faculty member in specialized practicum” (OPP). “When I encountered the students learning while working in clinical settings and saw their sparkling enthusiasm for learning, I was deeply moved. I wanted to contribute even a little and felt motivated to become an educator. Despite the decrease in salary compared to my clinical days, my desire to be involved in education was stronger. That’s where the understanding of my family helped me.” For Educator A, taking the first step as a nursing educator was a choice driven by her strong will, despite the changes such as “the difference in treatment compared to her time as a nurse” (SD). There was a strong determination to become an educator, fueled by the inspiration from witnessing students learning while working.

BFP2: Feeling the Need to Learn about Teaching

Educator A, upon assuming her position as a full-time instructor at the school, found herself grappling with uncertainty about how to teach when entrusted with classes. She followed the path of “feeling perplexed about how to teach when given classes” and experienced anxiety as she “stood at the lectern for the first time with a blank mind.” This experience led her to reach a bifurcation point where she strongly felt the need to learn about teaching. While she had a desire for learning and exploration, she also faced the dilemma of being overwhelmed by the immense workload and the limited opportunities for training, despite her desire to learn. She spent her days desperately seeking hints from magazines and literature and exploring education on her own. “Inspired and motivated, I stepped into the educational arena, but I felt like I was being crushed by the overwhelming workload. I vividly remember feeling lost and anxious when I was told to start teaching and supervising practical training right away. I didn’t know how to teach effectively and felt inadequate because I could only deliver one-sided lectures. So, I resorted to searching for guidance in magazines and literature, constantly exploring on my own. During this time, I had the opportunity to confront the challenges of teacher training courses, and I embarked on the path of ‘Teacher Training Course Enrollment (OPP2).’” “Those 8 months of teacher training were intense study days. I learned things I didn’t know before, like the curriculum’s approach and why lessons progressed in a certain way. I received specific instruction on teaching methods and guidance on overall frameworks, which

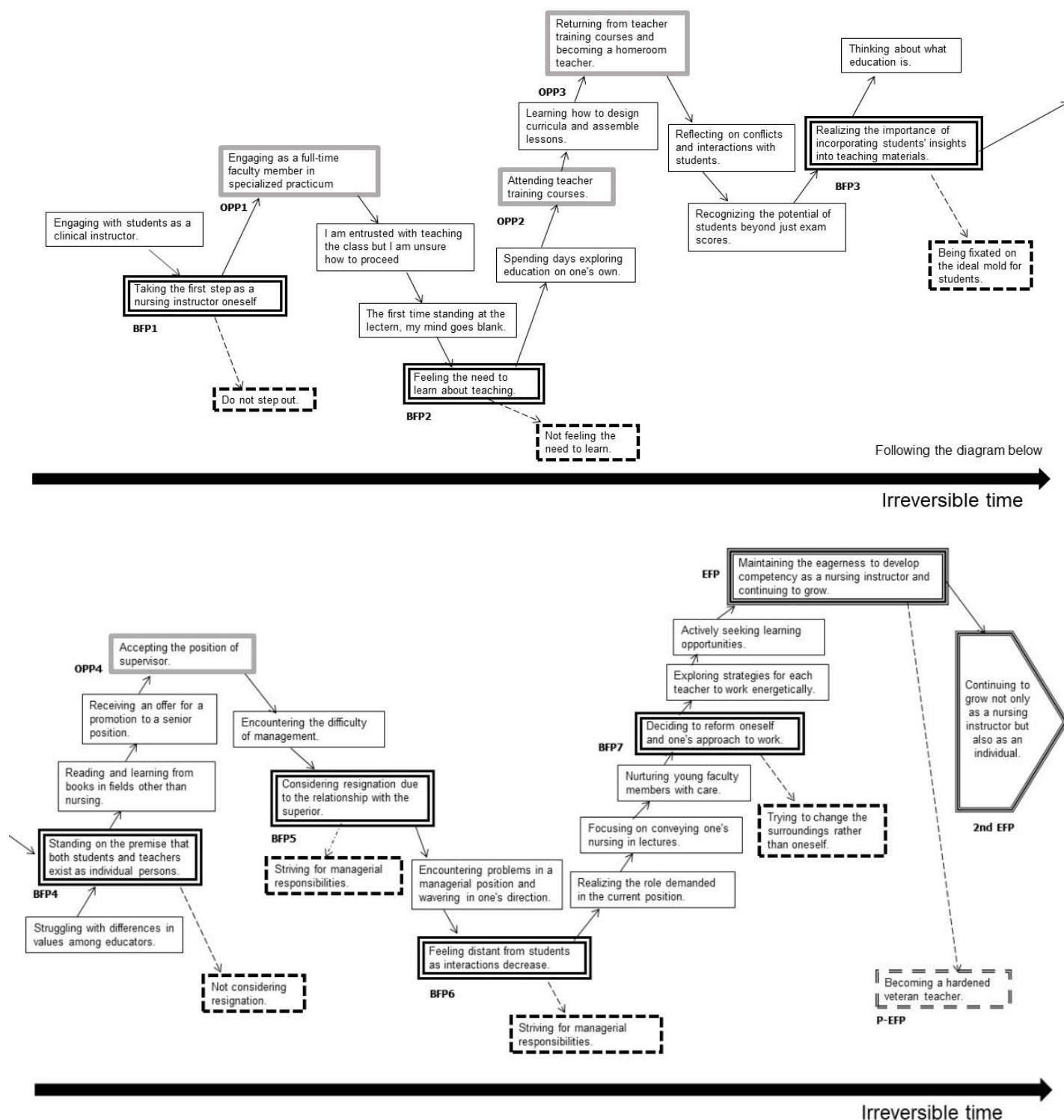


Figure 2: Competency formation process of nursing faculty.

laid the foundation for my teaching approach during that time.” At the branching point where Teacher A strongly felt the need to learn about teaching (BFP2), she was ‘filled with confusion and anxiety’ about how to teach and spent her days ‘searching for education on her own.’ In such circumstances, ‘participating in teacher training (OPP2)’ became a significant opportunity for Teacher A competence formation.”

BFP3: Realizing the Importance of Incorporating Students’ Insights into Teaching Materials

“At the 8-month teacher training program, Teacher A practiced ‘constructing lessons based on the curriculum’ and ‘valuing interactions with students during practicum’ in her own school. Through these daily experiences in educational practice, she reached the branching

point where she became aware of the importance of ‘transforming students’ insights into teaching materials (BFP3).’ This branching point was influenced positively by factors such as ‘encounters with instructors during Teacher Training Programs and ‘collaboration with clinical settings (SG),’ while factors such as ‘complexity of practicum facilities (SD)’ and ‘differences in values among teachers (SD)’ served as inhibitory factors. These insights shed light on the significant branching point in the process of competence formation.” “After returning from the teacher training program, I was full of enthusiasm. From then on, I spared no effort in thinking about things like schedules and lesson planning, and teaching truly became enjoyable. Previously, it had been rather one-sided, but I started to teach classes based on students’ reactions, and I began to feel a sense of response. Before that, I had been interacting with students based on a certain mold of how things should be, but I realized that if I didn’t try to see the world from their perspective, it would only be self-satisfactory. After returning from the teacher training program, my first class was on ‘cleanliness,’ and I think I talked about hot springs in that class... The students’ reactions were different from before... I realized how important it is to engage with students while grasping their reactions.” Teacher A, began to incorporate students’ feedback into their teaching, moving away from unilateral instruction, and applied the learning from teacher training programs to educational practices. This learning led to a turning point, recognizing the necessity of materializing students’ insights (BFP3), shifting from one-way knowledge transmission to actively capturing students’ reactions and conducting educational practices with a student-centered approach.”

BFP4: Standing on the Premise that Both Students and Teachers Exist as Individual Persons

While reflecting on interactions with students, Teacher A continued to ponder what education truly means, receiving guidance from superiors and colleagues while continuing to learn through daily educational practices. Through experiences grappling with differing values among teachers, Teacher A followed a path leading to the realization that both students and teachers exist as individual persons. Furthermore, in the midst of daily educational practices, Teacher A sensed the excitement of education and deepened her learning by reading books from fields other than nursing, enhancing her understanding of human nature. This shift from merely imparting knowledge unilaterally to valuing the stance of learning and growing as an individual alongside students became significant. “While learning from various teachers... and interacting with students, there were times when conflicts arose, and many things made me wonder why. However, if I was wrong, I apologized... There were times when I wanted immediate results, but I realized that our job takes time to bear fruit... This was made apparent to me by seeing graduates thriving in the field. However, on the other hand, there’s also a force to quickly change students, and we are grappling with conflicting values.” “Teacher A, grappling with differing values among teachers, reflected on interactions with students. The pathway to the turning point of ‘Standing on the premise that both students and teachers exist as individual persons (BFP4)’ involved confronting and revisiting clashes with students, and numerous experiences of engaging with students as

whole individuals were recounted. From there, while reading books from fields other than nursing, she was deepening her understanding of human nature.”

BFP5: Considering Resignation due to Relationship with Superiors

Upon receiving an offer for a promotion to supervisor, Teacher A faced various uncertainties and encountered the challenges of management with a resolve to accept the position. However, amidst these circumstances, there was consideration of resignation due to the relationship with superiors, reflecting a struggle with the difficulty of management. Yet, supported by the presence of colleagues, as evidenced in her discourse of “not wanting to betray other teachers” and “it’s about trust, isn’t it,” Teacher A accepted the role change. “Becoming a supervisor, my own judgment axis was questioned. It was a position where judgment was required... I was wavering,” she expressed. Amidst the conflict, her acceptance of the role change was evident.

BFP6: Feeling Distant from Students as Interactions Decrease

Teacher A faced challenges in her managerial role, causing her to question the direction and reevaluate what truly mattered. Given her position in middle management, she experienced a turning point where she felt a decrease in interaction with students and sensed them becoming more distant. Amidst this, factors such as a busy schedule and the demands of her managerial duties acted as obstacles, while her desire and commitment to the students provided support. “In terms of being in a position where judgment is required, I was really wavering. But what is truly important, it’s still about nurturing nurses who prioritize patients’ feelings. However, due to my position, I couldn’t be as close to the students as before, so I thought I had to convey that sentiment through the duties assigned to me. It felt a bit lonely, though.” While feeling the loneliness brought about by the role change of “not being able to be as close to the students as before,” Teacher A continued to “question what is truly important” while exploring her own direction, “through the duties assigned.” At that juncture, the desire and sentiments towards the students served as a supporting force, leading to subsequent pathways.

BFP7: Deciding to Reform Oneself and One’s Approach to Work

“Teacher A, realizing the role demanded in her current position, dedicated herself even more to conveying her nursing expertise in lectures and assumed the mission of nurturing future generations, while also nurturing young teachers, and prepared to reform her own way of being and working (BFP7). She reached this turning point amidst factors such as resistance from some teachers to the old ways (SD) and a vast workload (SD), while being propelled by the sense of achievement among young teachers (SG). To support this sense of achievement, she attempted to visualize the results of daily practices and explored strategies for each teacher to work energetically, actively seeking learning opportunities despite her managerial position. This led to the ongoing motivation for capacity building as nursing educators

(EFP), ultimately reaching the Second Equifinality Point (2nd EFP) where she continues to grow not only as a nursing educator but also as an individual. The Second Equifinality Point refers to a meaningful equifinality point for research collaborators, which may differ from the equifinality point set by the researcher.” “I believe that we have no choice but to change. Many senior teachers may be unable to change their ways, but I want to nurture young teachers with enthusiasm. With fewer opportunities for direct interaction with students, I see lectures as a chance to convey nursing effectively.”

Imagination and Transduction

“We would like to focus on the critical junctures in the competency development process of Teacher A. Returning from teacher training courses, Teacher A felt joy and fulfillment in teaching while structuring lessons based on the curriculum. However, she began to question her own approach of unilaterally imparting knowledge as she realized the potential of students beyond just exam scores. This led her to follow the path of reflecting on conflicts and interactions with students, eventually reaching a critical juncture (BFP3) where she recognized the importance of incorporating students’ insights into teaching materials.” At the beginning of her tenure, Teacher A earnestly sought hints from magazines and literature, spending days exploring education on her own, believing that, educators should impart knowledge to students in the mold of “one-sided, should-be-like-this, should-be-like-that,” as recounted in her narrative. However, sparked by reflecting on conflicts and interactions with students, she continued to question what education truly meant. She distanced herself from the experiences of nearby students, who achieved post-graduation success or lack of life experiences, viewing them as resources in the “here and now.” This led to a critical juncture (BFP4) where Teacher

A questioned the premise that they should stand apart from students based on their proximate experiences, eventually discovering a new dimension where both students and teachers exist as individuals, realizing that they are not merely purveyors of knowledge. (Figure 3). This analysis showed that teachers are not merely unilaterally bestowing knowledge it became apparent that teachers are not merely bestowing knowledge and trying to change students swiftly. Instead, they exist as individuals, deepening their mutual understanding and learning from each other. This realization became evident in Teacher A’s subsequent trajectory, in particular, where despite encountering problems in the managerial position and wavering in their direction, they became aware of the role demanded of them in their current position, Thus, leading to the ultimate realization of “continuing to grow not only as a nursing instructor but also as an individual.” This served as the second equivalent focal point in their journey.

Reflection

Teacher A Continuing to Grow Through Mutuality

“Teacher A, with a fervent enthusiasm for education, took the first step forward as a nursing instructor (BFP1). This decision was inspired by encounters with students during clinical instruction, which revealed the essence of teaching and learning. Initially, upon assuming the position, Teacher A grappled with how best to teach and continuously searched for her role as an educator. This role was defined by an emphasis on conforming to established norms and expectations, possibly influenced by the institutional culture rather than Teacher A’s personal aspirations. However, through interactions with students and participation in teacher training programs, Teacher A reached a critical juncture where her discarded the notion of predefined roles and embraced the premise that ‘both students and

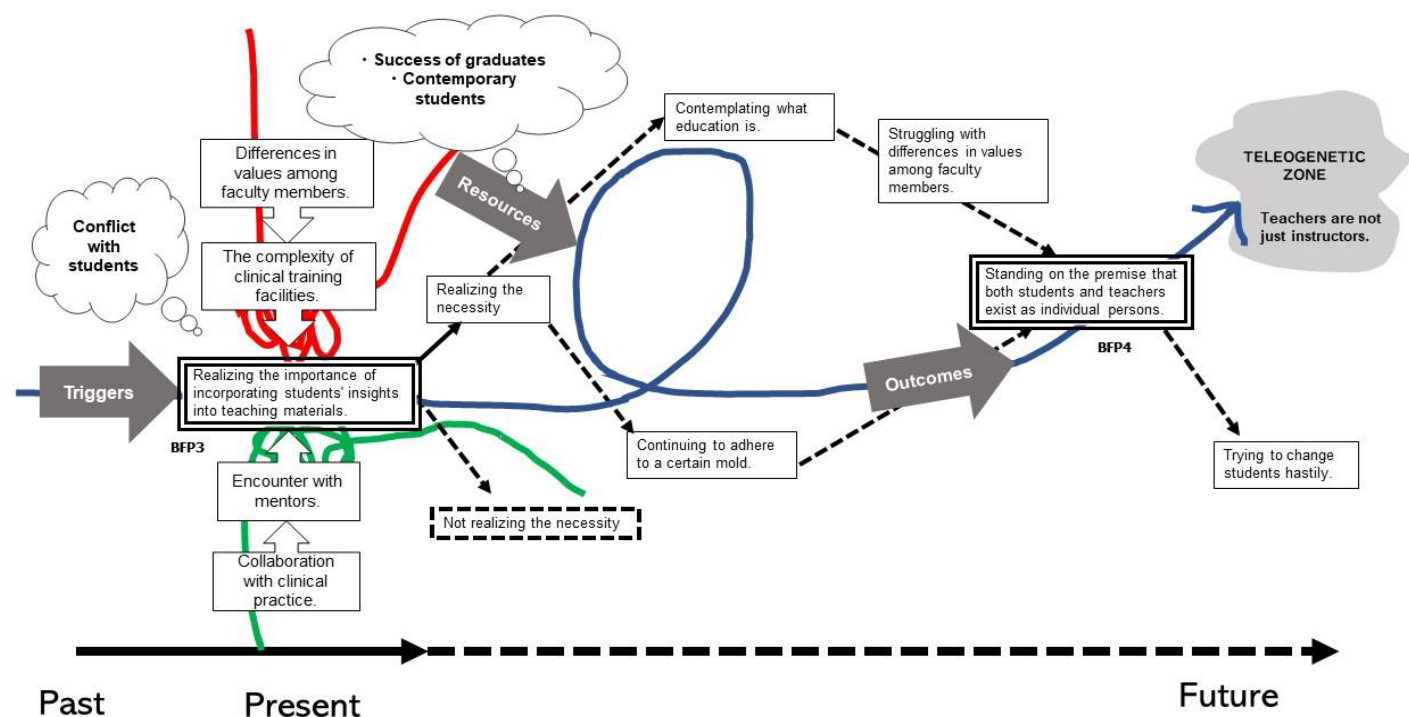


Figure 3: Imagination and transduction.

teachers exist as individuals' (BFP4). This turning point was facilitated by the experiences with students encountered in clinical settings and her past clinical experiences, which served as catalytic forces. The concept of existing as individuals became a consistent and unwavering axis in Teacher A's process of competency development." In their work, Yagi and Meguro [17] asserts that the relationship between nursing instructors and students mirrors that of nurses and patients, emphasizing that only through adopting this attitude can a clinical relationship be established. This means that nursing instructors must actively engage in her students' learning processes, embodying and responding to their learning experiences in a holistic manner to effectively support their development. Specifically, teachers encourage students to articulate their experiences in their own words and assist them in grasping the essence of nursing and distinguishing it from other practices [18]. This understanding can be traced back to the recognition of the importance of incorporating students' insights into teaching materials. Teacher A, while facing occasional conflicts and encountering differences in values among colleagues, approached student interactions as opportunities for mutual growth. Instead of seeking a singular answer, she explored the diversity of educational practices and the potential of her own engagement methods. This approach is integral to competency development and resonates with Noddings' [19] concept of caring. Noddings [20] defines caring as sustained involvement and interest in the well-being of others over an extended period, continuously updating methods of engagement. This understanding frames caring as both an action and a disposition, emphasizing the relational aspect inherent in the interactions between the caregiver and the care receiver.

For Teacher A, the supervision of practicums, teaching, and interactions with students constituted a dynamic arena of mutual engagement, constantly evolving through the interactions between herself and her students. This was evident from her narrative, emphasizing the importance of sensing and responding to students' reactions during classes. This highlights how the relationship of teaching and learning, as well as nursing and being nursed, thrives within this arena of mutuality. As Teacher A gained more experience, they were offered the opportunity to take on a leadership role, eventually accepting the position of a department head (OPP4). Transitioning into a managerial position meant that the arena of mutuality shifted from clinical settings and classrooms to administrative offices and meeting rooms, as reflected in their narrative: "Given my position, I can't be physically close to the students, so I can only convey my thoughts through the assigned duties..." Despite encountering challenges in the managerial role and wavering in the direction, Teacher A continued to learn and challenge herself anew, aiming to transform the school into a place where young teachers are nurtured and each educator can flourish. The wishes and aspirations for students acted as a catalytic force, enabling Teacher A to envision the future while overseeing the current situation, clarifying the direction of educational interactions, and demonstrating organizational leadership. Finally, let's focus on the image of Teacher A, who discovered new dimensions through imagination. Initially encountering what seemed like a negative event of "conflict with students," Teacher A envisioned and grappled with the essence of education by leveraging the current situation of graduates' achievements and the limited life experiences of some

students as resources. At the beginning of her tenure, Teacher A diligently sought hints from magazines and literature, spending days exploring education. She initially painted a picture of educators who unilaterally teach knowledge and skills, emphasizing the imparting of knowledge in their role. However, through experiences of facing students and occasional conflicts, she pondered what it truly means to understand and teach, striving to engage with students. Liberating herself from predefined images also involved questioning the ideal image of students. Facing students against the backdrop of living in a society where life experiences are limited, Teacher A creatively crafted her own values, which is considered crucial in the process of competency development as a nursing instructor. In this study, the process where a nursing instructor imagines and creates new options despite grappling with differences in values among colleagues and facing conflicts, while remaining hopeful and steadfast in confronting the essence of education, was observed. It is in such moments that competency development is likely achieved. Moving forward, it's essential to clarify how each nursing instructor forms their competency through encounters with students and their interactions.

Challenges in this Study

In this study, we visualized the competency development process of the nursing instructor and focused on pivotal moments to illustrate how she imagine and discover new dimensions. The bifurcation points in the competency development process of the nursing instructor revealed a glimpse of her ongoing growth through mutual engagement, amidst societal pressures such as differences in values among educators, the complexity of practicum facilities, collaborative efforts with clinical settings, and social support from encounters with mentors during teacher training programs. Furthermore, by utilizing TEA as the analysis, we were able to uncover the depth of experiences of the nursing instructor. However, the study had limitations, such as having only one participant and focusing on one instructor from a vocational school, leaving room for further development. In the future, it will be necessary to increase the number of participants, aiming for a more diverse range of experiences and typification of pathways, in order to comprehensively elucidate the competency development process of the nursing instructor.

Conclusion

Through the analysis conducted using TEA, the competency development process of the nursing instructor revealed the individual who, despite grappling with differences in values among colleagues and facing conflicts, continued to confront the essence of education without losing sight of hope and guidance for the future. At these pivotal moments, while societal pressures such as "differences in values among educators" and "complexity of practicum facilities" exerted influence, "encounters with mentors during teacher training programs" and "collaborative efforts with clinical settings" acted as sources of social support. The series of analyses unveiled the image of a nursing instructor who continues to grow through mutual engagement.

Acknowledgments

I sincerely appreciate the cooperation of Teacher A, who contributed immensely to this study.

Postscript

This study is an extension and revision of a portion of the doctoral thesis from the Graduate School of Human Sciences at Ritsumeikan University.

Conflict of Interest

There is no conflict of interest in this study.

Authorship Credentials

T.C and T.S contributed to the manuscript's conception, design, analysis, and writing. All authors have read and approved the final manuscript.

Research Funding

This research was conducted with the Japan Society for Nursing Education grant.

References

1. Japan Association of Nursing Colleges. FD Guidelines for Young Nursing Faculty Members - Aiming for Quality Improvement in Nursing Education. [Internet] 2011.
2. Ministry of Health, Labour and Welfare. Report of the Study Group on the Future Roles of Nursing Instructors. [Internet] 2010.
3. Hirokawa E, Hosokawa K (2021) Process of starting to walk as a New Teachers at Nursing Colleges as Teaching Instructors. *J Jan Acad Nurs Ed* 30: 27-38.
4. Yamamoto M (2020) Educational Involvement of Nursing School Teachers Toward Students in Clinical Practice Conferences. *J Jan Acad Nurs Ed* 29: 43-56.
5. Ohtsu H, Mochizuki A, Adachi M, Watanabe A (2006) Analysis of factors influencing the formation of nursing instructors' abilities. *J Japan Soc Nurs Med Care* 8: 21-30.
6. Tanaka C, Okazaki M (2016) The Formation process of Developmental Ability of Expert Nursing Educator Narratives about their Experiences. *J Jan Acad Nurs* 26: 29-41.
7. Tanaka C, Sato T (2020) The structure of competence development in mid-level nursing teachers *J Nurs Educ Res Soc.* 12: 13-24.
8. Zittoun T, Gillespie A (2016) Imagination in Human and Cultural Development. London: Routledge.
9. Satou T (2021) About Exhibition. Exhibition Research Group.
10. Simondon G (2018) On the Mode of Existence of Technical Objects. Fujii C, Kondo K, Nakamura D, Stéfan L, Tachibana M, Yoneda T, translators. Tokyo: Hosei University Press.
11. Dewey J (1938) Experience and Education. Ichimura N, translator. Tokyo: Kodansha.
12. Fujisawa S (2004) The formation process of teaching and learning abilities as "reflective practitioners." Tokyo: Kazama Shobo.
13. Akita K (2006) Life-long development of teachers and lesson creation. In: Akita K, editor. Classroom Research and Discourse Analysis. Tokyo: Japan Broadcasting Corporation Educational Promotion Association; Pg: 217-227.
14. Valsiner J, Sato T (2005) Historically Structured Sampling (HSS): How can Psychology's Methodology Become Tuned in to the Reality of the Historical Nature of Cultural Psychology? In: Straub J, Kölbl C, Weidemann D, Zielke B, editors. Pursuit of Meaning: Theoretical and Methodological Advances Cultural and Cross-Cultural Psychology. transcript. Pg: 215-252.
15. Sato T (2009) Starting Qualitative Research with TEM: Aiming for Research on Time and Process. Tokyo: Seishin Shobo.
16. Sato T (2015) Saturation in TEM. In: Yasuda Y, Nameda A, Fukuda M, Sato T, editors. Word Map TEA Theory Section - Learning the Basics of Multilinearity Approach. Tokyo: Shinyosha. Pg: 24-28.
17. Yagi F, Meguro S (2010) Educating Myself as Someone Who Teaches Nursing: Nursing Instructors and Clinical Instructors. Tokyo: Igaku-Shoin.

18. Fujioaka K, Meguro S (2009) Concept and methods of clinical teacher education. In: Atagi F, Meguro S, editors. Developing Me as a Teacher: Nursing Instructors and Clinical Preceptors. Tokyo: Igaku-Shoin. Pg: 27.
19. Noddings N (1987) Caring: A Feminine Approach to Ethics and Moral Education. Tateyama Y, Hayashi Y, Shimizu S, Miyazaki H, Arata S, translators. Tokyo: Koyo Shobo.
20. Noddings N (1992) The Challenge to Care in Schools: An Alternative Approach to Education. Sato M, editor. Tokyo: Yurumi Publishing.

Citation:

Tanaka C, Sato T (2024) Process of Ability Formation in a Nursing Instructor Who Continues to Grow through Mutual Interaction: Transduction via Imagination with a Focus on Bifurcation Points. *Integr J Nurs Med* Volume 5(2): 1-9.