



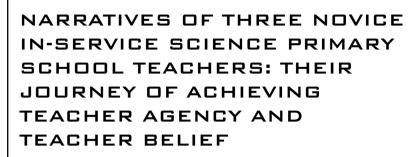
Abstract. This study explores the phenomenon of 'school adaptation of novice primary school teachers' in the process of entering their actual primary school field. This study also studies the achievement of teacher agency and their teacher belief establishment procedure as novice teachers, not only in the actual teaching context but also as teachers who faced a special situation where their given role was different from what they learned from their university life. This study used a 'narrative' methodology. Narrative inquiry starts with 'researcher's narrative', which begins with the researcher's own story. The participants joined in interviews and submitted their teaching diaries. The participants of this study were three novice in-service teachers who were newly assigned to their primary schools. The research results are as follows. First, the novice primary school teachers achieved teacher agency while adjusting themselves to the school for a year. Second, novice primary school teachers did their best in terms of preparing for their classes in the process of being familiar with their schools' culture and system. This study highlighted the need for dual support of teaching and administrative tasks for novice primary school teachers.

**Keywords:** designing science lesson, novice teacher, science education, teacher agency, teacher education

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### Introduction

Novice teachers experience a rapid role shift due to the actual gap between the theory acquired in training and the school field, and the problem of teaching adaptation was left to the accumulation of individual trials and errors and experiences due to the lack of a systematic process for novice teachers in terms of entering the teaching profession (Kim et al., 2021). Rather frequently, early experience in teaching leads some novice teachers to evacuate from teaching due to professional frustration, strengthening the individualistic and conservative teaching culture by adapting to the existing order, or, on the contrary, others establishing a positive teacher identity by spending a passionate period. It is necessary to pay attention to that it can bring about changes in academic achievement and school innovation (Kim et al., 2021). The role of teachers is very important, and in terms of facilitating their roles in a teaching context, teacher belief and their subjectivity play a key role.

There are several ways to view teachers as an educational subject. One of them is the 'Teacher Agency'. Teacher agency is a new perspective for understanding teachers from a practical point of view. It is a perspective that connects and integrates elements dispersedly explained in terms of subjectivity, professionalism, and competence as an educational subject (Lee, 2020). Teacher agency was reconceptualized by relating the agency to the teacher's practice as an essence rather than a tool (Kim, 2019). It has emerged to overcome the current understanding of teacher behavior and practice, which sees teachers' subjectivity as a discourse that supports educational policy (So & Choi, 2018). In particular, teacher agency tends to be seen as an independent variable or factor in the teacher's behavior as an actor, but from an ecological point of view, the focus of discussion is on the ecological environment in which agency is achieved (Lee, 2020). In other words, the teacher's agency is a phenomenon that arises from the interaction of the teacher and the teacher's belonging context (Priestley et al., 2015).



NARRATIVES OF THREE NOVICE IN-SERVICE SCIENCE PRIMARY SCHOOL TEACHERS: THEIR
JOURNEY OF ACHIEVING TEACHER AGENCY AND TEACHER BELIEF

Regarding teacher agency, Priestly et al. (2011) suggested that the research focus should be on the matter of 'How is agency achieved' rather than 'What is agency'. In other words, it is more important to understand how teachers are achieving their own agency in the environment of school sites. In addition, the role of the teacher's beliefs is essential for teachers in terms of achievement of agency (Lim & Yun, 2021). According to Priestley et al. (2015), it is argued that the teacher's beliefs should be understood in advance to understand the teachers' recognition, decision-making, and personal or group discourse that assigns motivation. Teachers' educational beliefs vary widely, just as teaching methods differ from teacher to teacher, including learners (e.g., beliefs about inclusion and diversity), knowledge (epistemological beliefs), and teaching methods (beliefs about the curriculum, beliefs about essential elements of learning content). In addition, educational media, teaching strategies, beliefs about evaluation, etc.), parents, educational contexts, and educational organizations (Sang et al., 2009; Tondeur et al., 2008) are also included in the boundary of teachers' educational beliefs.

On the other hand, novice teachers who take their first steps in the school field are required to cope with various roles at the same time. They need to teach, manage the class, and handle administrative tasks like other experienced teachers from the moment they are assigned to the school (Kim et al., 2016). In this situation, due to the role and tasks that the novices need to cope with, it may be difficult to establish one's identity and educational beliefs, and therefore it will influence the path of achieving agency. Due to these reasons, many studies (Eurydice, 2009; Kim et al., 2011) asserted the importance of proper assistance for newcomers. They also reported that various types of support measures for novice teachers could help them overcome difficulties in the early stages of employment and help them to adapt to teaching life smoothly. In particular, recently, studies related to the strengthening of novice teachers' competency have been conducted. According to Jeong et al. (2014), various themes, such as 'subject guidance', 'comparative subject guidance', 'life guidance and counseling', 'class management', 'school administration support', 'connection with parents and the local community', 'professional development', 'understanding educational policy', and 'teaching knowledge', etc., were studied. In addition, they analyzed to what level the participants of their study possessed professional competence. These items are the teacher's job and require the teacher's agency.

The purpose of this study was to explore the Korean school culture, novice teachers' experience in Korean schools and development in the school setting. The procedure of their achievement of teacher agency through the actual allocation into Korean schools will be studied, and through it, the importance of establishing a systematic framework for novice teacher training not only Korean setting, but also universal setting could be identified. This study also examined not only the achievement of teacher agency of novice teachers at their new school, but also the formation of educational beliefs of newcomers in the process of school adaptation of novice primary school teachers in charge of science-subject. In the Korean primary school context, the teacher allocating system has been operated for practical and functional reasons in order to enhance the professionalism of teachers in a specific subject and to reduce the class hours of upper-grade teachers (Ministry of Education, 1992). At the primary school site, subjects such as science, music, physical education, and English are operated and those are the subjects that require subject specialized teachers. In particular, science is a subject with low teacher efficacy (Kim, 2010), and many schools operate a subject-only teacher system.

In a study of immersion and alienation in primary school subject teachers' school life, Kim (2004) found those subject teachers improved the quality of their subject classes by focusing on their own classroom. On the other hand, a loss of motivation or lethargy exhibition was also reported. It can be said that it shows the reality of the school field of the subject-only system, which was implemented with an emphasis on improving teaching efficiency and learning effect.

From this perspective, this study explored the phenomenon of 'novice teachers adapting to their school and the school's acceptance of them'. In particular, the various actions and practices of a teacher entering the field as a novice teacher in the specific situation of being a science-subject teacher rather than a homeroom teacher would provide various implications for teacher training as well as the story of the Korean educational context. Therefore, the specific research questions of this study were as follows.

First, how do novice primary school teachers in charge of science-subject achieve teacher agency in the school adaptation process?

Second, how are the educational beliefs of novice primary school teachers in charge of science-subject formed during the school adaptation process?



### **Research Methodology**

#### General Background

A narrative is a structure that organizes a series of events into one complete story and gives meaning to each individual event in light of the overall story. This narrative structure reveals the meaning of individual experiences by showing how they function as parts of the whole life (Polkinghorne, 1988). The narrative should often be used separately from the story people know, whereas a story refers to an anecdote about a specific situation, whereas a narrative refers to life events that occur over a long period of time (Clandinin & Connelly, 1990). In this way, the narrative becomes a framework that provides temporal continuity to the discontinuous world of experience by revealing the relationships that exist between a series of events that appear to have occurred chaotically and meaninglessly (Connelly & Clandinin, 1988). The narrative is structured around a series of questions, such as what happened, who was in the world of experience, and why they acted in the way they did (Park, 2006). The narrative is the process of interpreting the experiences of the research participants based on this information and in the process of analyzing the data, it constructs the meaning of the experiences. In other words, the narrative process is an interpretive work. It should include a thought process to explore how the research participants' experiences could be interpreted and what their meanings are. The narrative inquiry follows the in-depth process that attempts to understand reality by structuring and relating various data related to research participants and synthesizing seemingly heterogeneous events (Robinsin & Hawpe, 1986).

# Sample Selection

In this study, three novice teachers were invited. They all graduated from a teacher training university located in the central region of South Korea. At the time of participating, they were working as teachers in the primary school field from the very following year. For the study, one preliminary interview with the study participants, three autobiographical essays, and one in-depth virtual interview were conducted. On-site participation observations and face-to-face interviews were initially planned, but they could not be performed due to COVID-19. The collected data were classified and analyzed according to the narrative inquiry procedure, and the features of study participants' educational beliefs and teacher agency were summarized as they were adjusting themselves to the school as new science-subject teachers. As narrative inquiry proceeds through 'narrative thinking' throughout the entire research process (Clandinin & Connelly, 2000; Clandinin, 2013), the researchers tried to understand the phenomenon through narrative thinking throughout the study. The researchers composed the life experiences of the study participants in the form of a narrative, that is, a story retold through narrative thinking. This was because the experiences of the study participants were continuous, relational, and social.

**Table 1** *Research Participants* 

Name of the participants (Anonymized)	Gender	Major	Assigned role	Year of allocation	Location of allocated schools
Lee Shin-Gyu	Female	Science	Science-subject teacher	March, 2021	A large city in South Korea
Kim Cho-Im	Female	Science-Music-Science			
Min Shin-Im	Female	Science			

All three study participants were female and were novice science-subject teachers assigned in March and April 2021, respectively. All cities to which their assigned school belonged were large cities in Korea, but they work in small schools in the area. All of the research participants majored in advanced science courses at the university, and they liked science not as teachers but as students as well. Lee Shin-Gyu, with a lively personality, was a challenging and questionable student, majoring in the Advanced Science Course at the university. She then transferred to the Advanced Music Course in the second year and then studied in the Advanced Science Course in the third year again.



NARRATIVES OF THREE NOVICE IN-SERVICE SCIENCE PRIMARY SCHOOL TEACHERS: THEIR
JOURNEY OF ACHIEVING TEACHER AGENCY AND TEACHER BELIEF

Kim Cho-Im was a student who was active and cultivated leadership in many areas. She served as a representative of the university. She also travelled to new places, frequently. Min Shin-Im had the personality to actively ask questions, and although she was studying an advanced science course at the time of research participation, she was a student who majored in liberal art in high school. So, she was a bit hesitant to take science major lectures. All of the study participants were very active and challenging at the given tasks. They prepared more thoroughly for the entrance examination compared to other students preparing for the examination, then, all of the study participants were assigned to schools in a large city in March 2021.

#### Instruments and Procedures

As mentioned earlier, the data were collected in various ways. Firstly, field texts were composed through one preliminary interview with the participants. Secondly, autobiographical essays from the three participants were collected. Thirdly, one in-depth interview was conducted. Participation observations and interviews, which were originally planned for the school visit, were not conducted due to the COVID-19 situation. Alternatively, interviews were conducted via video call using Zoom. The preliminary interview was conducted on the topic of current feelings and life at the time of the assignment, and the in-depth interview was conducted on the topic of the working environment and business processing at the school. The three autobiographical essays consisted of the themes of 'The thrill of dispatch, the image of the school I drew', 'Work environment and work handling at school', and 'A year as a novice teacher'. Data were collected between March 2021 and February 2022.

# Data Analysis

All interviews were transcribed, and the research text was composed based on the interview transcripts and the participants' essays. To increase the credibility of the study, all of the collaborators participated in the composition of the study text. For the consistency of the field texts, the research texts were constructed after all field texts were completed. In order to prevent the sense of presence and distortion of the field text, the research text was constructed by interpreting the meaning carefully while all the researchers were aware of the context of the field text. After the research text was completed, a plot was constructed based on it. The plot was constructed by reinterpreting the meaning and significance of the narratives of the research participants. The plots were constricted by finding thoughts and actions related to the establishment of educational beliefs and achievement of teacher agency. The three participants' gradual change into field teachers over time were shown through the data analysis procedure. The constructed plots were sent to the study participants to be reviewed for errors in meaning and interpretation, and then finally confirmed.

### **Research Results**

The researchers shared the feelings of the participants' narrated experiences in the process of interpretation and organization of the meaning of the field texts to compose the research text. The difficulties experienced by the participants as novice teachers in newly allocated schools touched the researchers' hearts.

# Excitement and worries about 'Secondment'

OO Primary School was like an imaginary school, preparing for the second exam and having the ideal school scene in various books. It was the image of the school I had envisioned, that is, a school where all school members cooperate for education, teachers' autonomy is guaranteed, class activities are free, and they do not spare support and effort for children. I even felt fortunate to have started my teaching career at a school like this, admiring, 'There are schools that really do this.' So, on March 2nd, I went to school with high expectations. (Kim Cho-Im)

Kim Cho-Im received the assignment and went to work in February to prepare for the start of school in March. The excitement and anticipation for her secondment to the school were seen through the written impressions shown above. Like Kim Cho-Im, Min Shin-Im was preparing for an examination and understood that the school atmosphere was more student-centered rather than teacher-centered. She imagined students would be happy at the school atmosphere. She also imagined a context where students in the classroom have fun learning while playing in nature. Min Shin-Im, who likes children, talked about 'worry' as she talked about the difference between



NARRATIVES OF THREE NOVICE IN-SERVICE SCIENCE PRIMARY SCHOOL TEACHERS: THEIR JOURNEY OF ACHIEVING TEACHER AGENCY AND TEACHER BELIEF (PP. 1040-1051)

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loving children and teaching them. However, she also expressed the expectation that, once an issue arises, she will solve it through self-study or cooperation with fellow teachers, then develop gradually as a teacher.

I don't know if it's unfortunate or fortunate, but I don't have any fantasies about the original school. Perhaps that is why, rather than the excitement of Balyeong (secondment), I was filled with worries. This is because I felt that my competency was very insufficient to become a teacher while preparing for the entrance exam, especially during the second interview and class demonstration. With doubts about whether it would be okay to go out on the field as it is and fear of what would happen if students were harmed with insufficient skills, I waited for the release in March. I would rather have a one-year waiting period to gain experience. (Lee Shin-Gyu)

Unlike Kim Cho-Im and Min Shin-Im, who talked about excitement, Lee Shin-Gyu said that after receiving the secondment, worries preceded excitement. She said that while preparing for the second interview and class demonstration, she had doubts and fears, 'Can I go out to the field like this?' She also said that when it comes to school work, she has a certain sense of self-confidence, 'Something will be fine', so it wasn't a big deal. However, in an interview at the end of the school year, Lee Shin-Gyu replied, 'After all, work was the biggest problem.' She also mentioned that despite such worries, 'I can't change anything, so I've decided to resign and think positively.' And she said she was thankful that she could be assigned as a science-subject teacher instead of a homeroom teacher, so she didn't have to prepare for many subjects and life guidance that she had to do if she was a homeroom teacher. Kim Cho-Im and Min Shin-Im, who were equally assigned as science-subject teachers, also reported that it was good that they did not work as homeroom teachers like Lee Shin-Gyu.

Lee Shin-Gyu said that school was a place full of 'flutter', unlike the 'worries' she had when she started going to school.

Maybe it was because I had no expectations in the first place, and unlike what I was worried about in advance, the school was a place full of excitement rather than worry. (Lee Shin-Gyu)

Many teachers, like the three participants, must have had mixed feelings of excitement and anxiety before the secondment. However, at the same time as the secondment, the feelings of excitement and worry seemed to fade away. In reality, it would have been unfamiliar to novice teachers because it was the first time they encountered the actual realities at school. The school was a harsh reality for novice teachers who only experienced the teacher's path through lectures, books, and short training sessions at their university.

I just became a teacher, and it is difficult to teach, but I always wanted to work, so I always left work after the sun went down, and I went to work until the weekend and worked for a month. (Kim Cho-im)

## The Actual School System & Atmosphere that Novice Teachers Faced

All three novice teachers had to deal with science-subject-related tasks in school work as well. Kim Cho-Im and Lee Shin-Gyu's given responsibilities were more information-related tasks. However, in the case of Min Shin-Im, she was assigned additional tasks besides science subject related work. Min Shin-Im was saying that the tasks were so huge so that in the case of large schools, the same tasks given to the three novice teachers would be shared by several people. However, in the case of the three novice teachers, they had to be in charge of it alone.

If there are many other schools with a large number of teachers, there will be a director and assistants, but in our school, there are few teachers, so everyone is a director, and each is in charge of a major task. Among them, I was in charge of two heavy tasks: science and information. (Lee Shin-Gyu)

In a large school, if there is a large department, it seems to be divided and taken care of. I just took on the three big ones ones: science, physical education, and safety education. (Min Shin-Im)

Last year, when I heard that it was a task shared by one administrative practitioner and two dedicated teachers, it was very burdensome that I had to take on all the tasks alone. (Kim Cho-Im)

Due to this heavy workload, three novice teachers recalled that they had a very difficult year. It was tough, but still, it was the process of the three novice teachers' teacher agency achievement and educational beliefs establishment.



NARRATIVES OF THREE NOVICE IN-SERVICE SCIENCE PRIMARY SCHOOL TEACHERS: THEIR JOURNEY OF ACHIEVING TEACHER AGENCY AND TEACHER BELIEF (PP. 1040-1051)

### Novice Teachers Teacher Agency Achievement

Kim Cho-Im said that at first, she did not know anything about the work, so she could not determine whether the work was appropriate or excessive. However, researchers were belatedly aware of the fact that Kim Cho-Im's work was shared by one administrative officer and two dedicated teachers last year. Researchers asked about that, and she said she felt it was unfair to not do it. She said that she couldn't understand the work because of the heavy workload and even the explanation for takeover the task conducted less than 10 minutes. In a situation where even a proper handover was not done, Kim Cho-Im had no choice but to stay at work until sunset for a month, and it was said that she had to go to work even on the weekend. This was also the case for Min Shin-Im. Compared to other novice teachers, she was in charge of three major tasks. This later became a huge burden. She was expressing her daily routine, by saying that 'I can't see the end of my workday by day.'

Lee Shin-Gyu reported a similar experience as below:

When I first received the Nice Certificate and opened the business portal (teachers' working messenger program), there were as many as ten official documents. I struggled here and there to deal with four, but somehow the number of official documents was ten. In the meantime, four more came. In this way, I had to check the work portal from time to time, and time. Whenever I logged in, I felt fear how many official messages would come. (Lee Shin-Gyu)

As Lee Shin-Gyu said, the official document must have been a fearful existence for the novice teacher. From figuring out the content to getting things done, someone should have been helping the newcomers. For novice teachers, too much work was a problem, but handling the work was also a big deal.

At first, he told me to ask if there was anything I didn't know, so I asked because I really didn't know everything, but everything I can do is listed in the official document. And there are many teachers who are not in charge of this task, but there are many teachers who do not know. 'Just look for the official document on your own and do it! It's just how I did it. But he told me to think about it first, then ask. Then I got a little schocked. I already thought about it and asked, so now I have to figure it out on my own. I think about it, and after that, I take care of it by myself. (Min Shin-Im)

As Min Shin-Im said, at first, she would have dealt with the matter by asking questions. However, as with all new learning, the exact same task was not given. Every day, the school site is overflowing with other official documents and work. Before a year had passed, everything would have been new for novice teachers. However, not only the previous teachers but also experienced teachers around them did not wait for novice teachers. Min Shin-Im was satisfied with little help from co-workers, and still, the novice teachers had no choice but to learn on their own.

Due to the heavy workload, Kim Cho-Im said that at some point, she was handling the work roughly according to her own will. She said that when she asked for help or explanation to do and complete the task, the only answer she got back was that they didn't know. It is said that she could not do what she thought was unnecessary in her own judgment, and only had to handle tasks in the way they had have being done for many years as the task outcome could be audited by higher authority of the school. As in the responses of Min Shin-Im and Kim Cho-Im presented below, in this process, it is judged that the two novice teachers achieved agency as far as school affairs are concerned. As Biesta and Tedder (2006) argued, it can be seen that the two novice teachers developed agency through interaction with members of the school during the flow time of one year as a novice teacher. In other words, it can be said that they have achieved subjectivity in judgment and execution of their actions with the passive help of other teachers of the school. The current school culture expects novice teachers to play the role of the public official who has to deal with heavy tasks, rather than as a teacher in charge of education, due to the rigid limitations of handover of duties and the culture that demands standing alone.

(These days) If there is something I don't know, I just do my best by looking at the document management ledger or data collection of last year's documents. Regarding something important, money, etc., I ask questions to the vice principal or the principal, and if it's not that much enough, I ask the manager and take care of it. (Min Shin-Im)

Seeing other schools running Science Day, I thought that it would be good to try it at our school as a manager, but I did not have enough time, and I gave up because I could not put an additional burden on the school with many educational programs such as projects being implemented. (Kim Cho-Im)



Unlike Min Shin-Im and Kim Cho-Im, who had to decide on their own with insufficient help from those around them, Lee Shin-Gyu handled the work according to the active advice and instructions received from the vice-principal. The vice-principal was a meticulous person, and he cared for the novice teacher as shown in the interview presented below.

The vice-principal is very meticulous, so he is well aware of all the work of the school, so he instructs the person in charge of the official inquiry about the direction and method of work. (Lee Shin-Gyu)

But that doesn't mean you do what your manager tells you to do. The first thing I do is ask my intention and guide me to make my own decisions. It's almost like a business academy. (Lee Shin-Gyu)

Like Min Shin-Im and Kim Cho-Im, Lee Shin-Gyu could be considered to have achieved teacher agency by ultimately deciding for herself and handling the work. However, it was confirmed that such a process was different from the other two novice teachers. As such, it was found that the process of achievement of the agency in acquiring and processing tasks according to the surrounding environment was different. In this respect, as Priestly et al. (2011) argued, teacher agency requires an understanding of the personal context in which the teacher exerts agency and an understanding of the environment in which change occurs.

As can be seen in the following content, the achievement process of teacher agency related to school work divided the evaluations and impressions of novice teachers' work at the time of one year. While Lee Shin-Gyu expressed pride and confidence, Min Shin-Im reflected on the episodes that she could not handle in a timely manner. In the case of Kim Cho-Im, she mentioned errors in the school site related to work. She felt skeptical feeling about the teaching profession and fellow teachers due to heavy work.

Seeing that my work for a year was organized, I was proud that I had accomplished these things, even though I was not able to receive official documents at first. Rather, I think it's fortunate that I learned the job hard when I was new when I didn't know anything. Because I now have the confidence to be good at any other job. There was a lot of work, but it was enough for me to handle, and thanks to this, I was able to have professionalism. (Lee Shin-Gyu)

The amount of work was too much for me, so I dealt with things that had to be (processed) quickly. As a result, when I was faced with a task that required a lot of time, I was pressed for time. (In the process of doing this) I felt sorry that the teachers asked me to inform them sooner next time. This year, I write a deadline on my calendar and try to finish my work at least a week before the deadline. (Min Shin-Im)

Even though the takeover (in 2021) has already been completed, the information audit is scheduled for March, so he is spending his time working on information every day. (ellipsis) I felt a lot of skepticism about the teaching profession during my one year of information work. I was constantly asked whether it was right for me to handle these related tasks, as I had no information-related education and a low understanding of work, and furthermore, is this what a teacher should do? The teachers who did not cooperate no matter how much they gave guidance were also resentful. I had no idea that I would grow as a teacher after being in charge of information work for a year. Even while working, I didn't even understand what I was doing. Next time, I hope to at least take on a job related to education. (Kim Cho-Im)

# **Educational Beliefs of Novice Teachers**

All three novice teachers had difficulties adjusting to school due to heavy schoolwork. However, in the procedure, they were learning the school work in their own way. In other words, teachers' agency was being achieved whilst they were struggling and coping with the given school work. The science-subject teachers in this study taught only the science subjects that they were assigned. In this situation, the novice teachers were doing well on their own in the 'class', which was their duty as teachers. They constantly thought about ways to create their class more enjoyable and good. The novice teachers were establishing a firm teacher belief in education. In the case of Min Shin-Im, she worked hard for an active and perfect class creation, then she even wrote the classroom teaching script and memorized it.

I did my best as a teacher. I went to work an hour early to prepare for classes, and if I had a lot of work, I would prepare for work and classes after leaving work or on weekends. In order to have a normal class, I studied the instruction book and wrote the class script and memorized it when I went to work or during breaks. (Min Shin-Im)



NARRATIVES OF THREE NOVICE IN-SERVICE SCIENCE PRIMARY SCHOOL TEACHERS: THEIR JOURNEY OF ACHIEVING TEACHER AGENCY AND TEACHER BELIEF (PP. 1040-1051)

Kim Cho-Im recalled that despite the stress from work, salary, and relationships with managers, the class was very enjoyable, and the time spent with the children in her classroom was good. As a teacher, she held well-established educational beliefs that she, as an educator, was enough to devote her passion to teaching materials and teaching itself in order to have a school life that is not shameful. In addition, she was concerned about her enthusiasm and losing people, and she recognized the importance of having a heart for children for the future of her career as a teacher.

The things that bothered me were mostly stressed from outside the class, such as work, salaries, and relationships with school teachers and administrators. But the class time was so much fun, and I enjoyed spending time with the kids. It's so pretty to see the children listening to my story with their eyes shining. I studied textbooks and classes so passionately that I could confidently say that I had a hard year. If my passion or love for classes and for children fades, I think the job of a teacher will be very difficult. I hope that my feelings toward the children will not change so that I can endure various difficult situations in the future. (Kim Cho-Im)

Like Min Shin-Im and Kim Cho-Im, Lee Shin-Gyu prepared diligently for the class. In particular, Lee Shin-Gyu was preparing independently for her classes as she went through trial and error procedure. She expressed herself as a highly desirable teacher by preparing her classes and reorganizing textbooks in consideration of the level of her students and her abilities. In terms of teaching compared to her school work, all three novice teachers were highly desirable and enthusiastic teachers. They had desirable educational beliefs, and they were constantly striving to uphold these beliefs.

I judged the activities, experiments, and evaluations to be performed every day. At first, I did not know the level of the students and I had never taught them, so I used textbooks and indie school contents as they were. However, at the end of the first semester and the second semester, various materials were modified to suit the level of the students I teach and to me as a teacher. I also tried to reorganize the textbook by changing the order of the textbooks and adding experiments that were not found in textbooks by taking advantage of my special skill in deepening science. (Lee Shin-Gyu)

### Adaptation and Growth of Novice Teachers

At the end of the year, the testimonials written by novice teachers revealed their adaptation procedure, that is, their growth process. Lee Shin-Gyu said, 'It was a lot of work, but I could handle it, and thanks to that, I was able to have professionalism in my work.' She also expressed her educational beliefs to her students, with a commitment to becoming a developing teacher as follows. One year was a very meaningful time for Lee Shin-Gyu. She also recalled the past when she was unsure about her teaching profession and wondered about choosing a teaching position.

I wish I could grow up every year just like I have grown up this year. I want to become a teacher who always develops without being complacent with an attitude of learning. I also want to exert a positive influence on students by continuing my teaching career with a grateful heart and a positive attitude. (Lee Shin-Gyu)

Above all, it was the first year that I became convinced that the teaching profession was the right fit for me. I have a high level of job satisfaction to the extent that it is funny that I wondered whether this path was right for me before I was assigned. (Lee Shin-Gyu)

Not only Lee Shin-Gyu, but Kim Cho-Im also expressed her future expectation to walk the path as an educator progressively in the future, saying that when the children were happy, she was also happy and could feel the meaning of her existence. The passion and ambition that the teachers hold, and their continuing articulation in the school context would be the strength to shed the light on the future of school education, system, and culture.

Min Shin-Im was also proud of the year she has been running passionately, and she has made up her mind to become a hard-working teacher.

I am happy when my children are having fun when I feel rewarded in the classes I have prepared hard for, and when I feel meaning in my existence as a teacher. As long as I am in the teaching profession, I will work hard to prepare for classes to be happy in the future, love children, and live progressively. (Kim Cho-Im)

I want you to think that you have been running passionately. Because the future self is what the present self is made of. In the future, I want to enjoy the present, live hard, and have an attitude of learning. Even if there are still a lot of clumsy things, it is natural. I expect that if I try my best by going through failures and finding things to improve on, I will have a better teaching life. (Min Shin-Im)



Min Shin-Im, Kim Cho-Im, and Lee Shin-Gyu, three novice teachers, experienced the hardship of school life and a different teaching profession they did not know when they were pre-service teachers through heavy work in their one-year school life. Such joy may become the driving force for novice teachers to live today and tomorrow. During the one-year period, novice teachers achieved teacher agency and established educational beliefs. In other words, novice teachers were grown up.

### Discussion

The teacher's perspective on education, which contains the teacher's teaching method, language, and belief in education are very important factors in achieving the teacher's agency. In addition, it is possible to grasp the current situation of teachers through the vocabulary used by teachers when explaining their perspective on education and the value and vision of education (Priestley et al., 2017). From this point of view, looking at the vocabulary used by the three novice teachers when they talked about their school life over the course of a year, 'don't know', 'mistake', 'asking one by one', 'a lot of it,' 'tolerable'', 'difficult', 'stress', 'work comprehension', 'to be bothered', 'huge burden', 'help', 'busy', etc. were used to construct negative sentences. On the other hand, regarding classes, words such as 'undeserved love', 'delight', 'achievement', 'happy', 'passion', 'love', 'hard work', 'preparation', 'motivation', 'laughter', and 'fun' were observed. Moreover, there were many positive words such as 'good class'. Looking at this part alone, it could be seen that the novice teachers experienced difficulties related to work within the one-year time period. In terms of class, they tried to design a good class for the students, and they felt proud through such a class. The novice teachers experienced the actual school field and faced different and not expected situations related to work. It was not an easy path to walk, but through walking, they achieved teacher agency. Lopes and Ambrosio (2016) stated that teachers' agency is not only to improve their professionalism but also to reflect and make judgments about teaching practices that are helpful to students. From this point of view, it can be said that all three novice teachers who participated in this study achieved teacher agency in not only improving work processing but also reforming teaching practice; especially in their classes.

Leijen et al. (2019) said that there is something that teachers should not overlook in the process of achieving agency, and this is the perception of 'context'. This means that it is important to understand the environment in which change occurs, and the phenomenon that occurs through interaction with the environment in which the teacher is placed was an agency accumulating scene. In this context, novice teachers had to take on a heavy task in a situation where they were not prepared for any work and task processing, so they had to bear it themselves. It was hard enough, but in the process, they achieved agency. On the other hand, in the process of achieving agency, Lee Shin-Gyu came to know the work she was responsible for could be completed with the help of those around her. With small assistance, she could finally be able to handle task independently. However, the remaining two novice teachers did not receive any help from their surroundings, so they had to experience trial and error. Even from these results, it can be confirmed that the environment has a large influence on the achievement of those two novice teachers' teacher agency. In addition, it was confirmed that if the process of achievement of the agency is achieved gradually and positively, like Lee Shin-Gyu, the thoughts of the new task to be assigned in the new school year will also have a positive and challenging attitude. So and Choi (2018) stated that specific teacher behavior is practiced in the context of the structure and culture surrounding the teacher, and that understanding of the teacher's behavior and practice would be very limited while ignoring these structures and cultural aspects. As has been shown in this study, it is important to understand the structure and context surrounding novice teachers, such as the assigned heavy work, school context, and lack of interest in assistance surrounding novice teachers. Still, the novice teachers presented the passion to prepare well and perform well in classes, and they could hold their own initiative as teachers. It is possible to understand the complex behaviors, emotions, and achievements of teacher agency by considering the complex aspects of the context and structure surrounding the school. Based on these considerations, we could have a better understanding of the behavior of novice teachers.

Priestley et al. (2012) said that agency often means some kind of freedom from external restraints and that it is impossible to distinguish conceptually from 'autonomy'. Novice teachers were constrained by their freedom of work. In particular, rather than a large amount of work, it was the arrest that came from not knowing how to handle the work. As time went by, novice teachers were getting out of this restraint by themselves (Kim Cho-Im & Min Shin-Im) or with help from others (Lee Shin-Gyu). On the contrary, all three novice teachers were free in class, in terms of curriculum design and teaching performance. They prepared everything they thought for their children and conducted it in the practice. They could feel the true meaning of education and establish their educational beliefs.



NARRATIVES OF THREE NOVICE IN-SERVICE SCIENCE PRIMARY SCHOOL TEACHERS: THEIR
JOURNEY OF ACHIEVING TEACHER AGENCY AND TEACHER BELIEF

The knowledge learned in previous education at teacher education institutions is not as useful as expected (Choi, 2006) because it assumes generality that is comprehensively applied to various educational situations (Seo, 2009; Hiebert et al., 2002). In this study, it was confirmed that novice teachers were experiencing many difficulties in relation to their work. To assist their development in their newly allocated schools, a detailed training scheme related to the actual official work process should be carried out.

Recently, research on the practical knowledge of teachers has been actively conducted. Lee et al. (2009) called practical knowledge as accumulated through one's own experience that could be immediately used in teaching practice. It was also said that practical knowledge could be influenced by the beliefs of teachers. In other words, practical knowledge is something formed according to the teacher's beliefs. The practical knowledge of teachers differs depending on how they understand the nature of school and education, and whether the experiences accepted by the local teachers were rather positive or negative in a given context. This might be the reason why it is important for teachers to establish the appropriate educational beliefs. The practical knowledge of novice teachers that is formed by experiencing the school field was the knowledge that could be continuously used in practice (Kim, 2010) and is the knowledge that is constantly reconstructed. In this regard, the experience of novice teachers in the school content is very important. In addition, it is very important to achieve teacher agency and establish educational beliefs. In this study, this point was also confirmed in the small meeting of the novice teachers during the year. The three novice teachers said that teaching is their path, and when children are happy, they would feel the meaning of their existence and teach with enthusiasm. One year for novice teachers was a time to solidify their beliefs about education.

Leijen et al. (2019) stated that actors perceive, interpret and act in the present situation, influenced by past beliefs, values, experiences, and future aspirations. Novice teachers have recognized, interpreted, and acted in their own situations based on their experiences over the past year, educational beliefs acquired in the process, and values for school life. As time goes by, novice teachers would possess more experience, and this would lead them to define their teacher beliefs and it would also influence to the change of an individual's teacher agency.

## **Conclusions and Implications**

This study explored the phenomenon of 'school adaptation of novice teachers' taking the first step to the primary school field, and the achievement and education of teacher agency as a novice teacher faced a special situation as a science-subject teacher instead of a homeroom teacher. It was a narrative inquiry into the process of establishing beliefs. The achievement of the teacher agency of three Korean novice teachers at their new school has been also studied. The formation of their educational beliefs and achievement of teacher agency in the process of school adaptation was vary.

First, the novice primary school teachers in charge of science subjects achieved teacher agency while adjusting to the school for one year. The achievement process of their teacher's agency differed for each individual, which was due to the difference in the help of those around him. Two novice teachers who did not have support from the surrounding area established teacher agency through trial and error, and a novice teacher who had the help of continuous attention would be able to think positively about future tasks as they gained confidence. The school was expecting a role as a public official who had to handle heavy tasks without learning the skills in detail. The novice teachers who had to be in charge of classes due to inefficient handover of work and a culture that required standing alone were handling the situation on their own. This raised the need of not only Korean Educational Department, but also Educational Departments in nations would always have to think about the primary role of a teacher in a school. The gap between the knowledge the novice teachers achieved in their university life was somewhat different from the actuality after they allocated to their school. The school work system should be reorganized so those novice teachers as well as teachers can fully spend time with students and classes.

Second, the novice primary school teachers in charge of science played their role as teachers through preparations for classes. At the same time, they were adapting to the school culture. They were carefully observing the system and the work process then tried to do their job properly. It was not an easy task, but they were coping with the administrative work and teaching at the same time. In the end, they could confidently say that they could firmly establish an educational belief and based on the experience, they would strive to grow every year.

In the long path of teaching, the year was the first impression of the teaching profession. But at the same time, it was a period to reflect on the meaning of the profession. Some novice teachers in this study even thought



about changing jobs due to excessive work and irrational work processing. However, they hold positive thoughts about classes with students.

In this regard, support or cooperation from educational institutions is necessary from the dual point of view of work and class for novice teachers to adapt and be accepted into a school. In reality, teachers in Korea have to handle various tasks related to school administration as well as classes. The limitation of this study is its focus on Korean schools, but this study shows high authenticity in terms of delivering the Korean school culture and the scheme of Korean novice teachers undergo when they are allocated to a primary school. Further studies of other countries' school cultures and novice teacher training schemes at their secondment school are required. Based on the studies, key elements for novice teacher adjustment schemes would rather significantly be identified and it would influence to many nations' systematic supporting program designing and implementation.

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### **Declaration of Interest**

The authors declare no competing interest.

#### References

- Biesta, G., & Tedder, M. (2006). How is agency possible? Towards an ecological understanding of agency-as-achievement. Working paper 5. The Learning Lives project. https://www.researchgate.net/publication/228644383
- Choi, I. J. (2006). Methodological study of the Korean language teacher's reflection on practical knowledge. *Korean Literature Education Research*, 21, 77-111.
- Clandinin, D. J. (2013). Engaging in narrative inquiry. Left Coast Press. https://doi.org/10.4324/9781315429618
- Clandinin, D. J., & Connelly, F. M. (2000). *Narrative inquiry: Experience and story in qualitative research*. Jossey-Bass. https://stars.library.ucf.edu/cirs/112/
- Connelly, F. M., & Clandinin, D. J. (1988). Teachers as curriculum planners: Narratives of experience. Teachers College Press.
- Connelly, F. M., & Clandinin, D. J. (1990). Stories of experience and narrative inquiry. *Educational Researcher*, 19(5), 2-14. https://doi.org/10.3102/0013189X019005002
- Downey, C. A., & Clandinin, D. J. (2010). Narrative inquiry as reflective practice: Tensions and possibilities. In N. Lyons (Ed.), *Handbook of reflection and reflective inquiry* (pp. 383-397). Springer US. https://doi.org/10.4324/9780429273896
- Eurydice network (2009). Key data on education in Europe 2009. Comision Europea, 2009.
- Hiebert, J., Gallimore, R., & Stigler, J. W. (2002). A knowledge base for the teaching profession: What would it look like and how can we get one? *Educational Researcher*, 31(5), 3-15. https://doi.org/10.3102/0013189X031005003
- Kim, E. (2010). A study on practical knowledge: The implication on teacher education and problem. *The Journal of Korean Teacher Education*, 27(4), 27-46.
- Kim, H. (2010). An analysis of elementary science teaching efficacy. Journal of Educational Studies, 41(1), 97-118.
- Kim, J. Y. (2019). The systematic literature review of teacher agency and the support plan for teacher agency. *Journal of Education & Culture*, 25(5), 105-128.
- Kim, S. (2004). A flow and alienation appeared on school life of a departmental teachers in elementary school. *The Journal of Korean Education*, 31(4), 27-51.
- Kim, J., Park, S., Kim, K., Chung, M., & Moon, C. (2011). A study on job competency development at each stage of teachers' life cycle (RR 2011-06). The Korean Educational Development Institute.
- Kim, M., Jang, K., & Kim, W. (2016). Developing an on the job training program for new teachers. *The Journal of Korean Teacher Education*, 33(2), 313-335.
- Jeong, J., Kang, T., Kim, K., Ryu, S., & Yun, H. (2014). A study on how to strengthen the competency of new teachers according to changes in the educational environment (CR 2014-55). The Korean Educational Development Institute.
- Lim, S., & Yun, S. (2021). Teaching in the Era of COVID-19: From narratives of a 25 years of experienced in-service Korean elementary school teacher. *EURASIA Journal of Mathematics, Science and Technology Education*, Article em2038. https://doi.org/10.29333/ejmste/11308
- Lee, C. (2020). An alternative approach to the teacher learning community to achieve the teacher agency. *The Journal of Korean Teacher Education*, 37(3), 1-26.
- Lee, S., Oh, P., Kim, H., Lee, K., Kim, C., & Kim, H. (2009). A review of research perspectives on science teachers' pedagogical content knowledge and practical knowledge. *The Journal of Korean Teacher Education*, 26(1), 27-57.



NARRATIVES OF THREE NOVICE IN-SERVICE SCIENCE PRIMARY SCHOOL TEACHERS: THEIR
JOURNEY OF ACHIEVING TEACHER AGENCY AND TEACHER BELIEF

- Leijen, Ä., Pedaste, M., & Lepp, L. (2019). Teacher agency following the ecological model: How it is achieved. and how it could be strengthened by different types of reflection. *British Journal of Educational Studies*, 68(3), 295-310. https://doi.org/10.1080/00071005.2019.1672855
- Lopes, C. E., & D'Ambrosio, B. S. (2016). Professional development shaping teacher agency and creative insubordination. *Ciência & Educação* (Bauru), 22(4), 1085-1095. https://doi.org/10.1590/1516-731320160040015
- Ministry of Education. (1992. 1.16). Consultation data on implementation plan for elementary school curriculum in accordance with local circumstances. http://english.moe.go.kr/sub/infoRenewal.do?m=0301&page=0301&s=english
- Park, M. (2006). A theoretical investigation on the concept of narrative: Storytelling, meaning-making, and communication. *Asian Journal of Education*, 7(4), 27-47.
- Polkinghorne. D. E. (1988). Narrative knowing and the human sciences. SUNY Press.
- Priestley, M., Biesta, G., & Robinson, S. (2011). *Mapping teacher agency: an ecological approach to understanding teachers' work*. Oxford Ethnography and Education conference. https://www.researchgate.net/publication/268204999
- Priestley, M., Biesta, G., & Robinson, S. (2015). The role beliefs in teacher agency. *Teachers and Teaching*, 21(6), 620-640. https://doi.org/10.1080/13540602.2015.1044325
- Priestley, M., Biesta, G., & Robinson, S. (2017). Talking about education: exploring the significance of. teachers' talk for teacher agency. *Journal of Curriculum Studies*, 49(1), 38-54. https://doi.org/10.1080/00220272.2016.1205143
- Robinson, J. A., & Hawpe, L. (1986). Narrative thinking as a heuristic process. In T. R. Sarbin (Ed.), *Narrative psychology: The storied nature of human conduct* (pp. 111–125). Praeger Publishers/Greenwood Publishing Group.
- Sang, G., Valcke, M., Van Braak, J., & Tondeur, J. (2009). Investigating teachers' educational beliefs in. Chinese primary schools: socioeconomic and geographical perspectives. *Asia-Pacific Journal of Teacher Education*, *37*(4), 363-377. https://doi.org/10.1080/13598660903250399
- Seo, K. (2009). Teacher learning communities and professional development. *The Journal of Korean Teacher Education*, 26(2), 243-276.
- So, K., & Choi, Y. (2018). Understanding teachers' practices in the context of school-based educational reform: focusing on the concept of 'Teacher Agency'. *The Journal of Curriculum Studies*, *36*(1), 91-112.
- Tondeur, J., Hermans, R., Van Braak, J., & Valcke, M. (2008). Exploring the link between teachers' educational beliefs profiles and different types of computer use in the classroom: The impact of teacher beliefs. *Computers in Human Behavior*, 24(6), 2541-2553. https://doi.org/10.1016/j.chb.2008.02.020

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