

UNDERSTANDING JAPANESE NURSING STUDENTS' LEARNING BELIEFS AND BEHAVIORS IN NURSING AND ENGLISH: INSIGHTS FROM INTERVIEWS

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ABSTRACT

This study explores how Japanese female nursing students' mindset beliefs influence their learning and effort regulation in both nursing and English, identifying key differences and similarities with implications for both TESOL and international nursing education. Using a mixed-methods design, the study incorporated semi-structured interviews with 10 participants, which included both closed-ended quantitative and open-ended qualitative questions to gain a comprehensive understanding of their perceptions and strategies. The findings revealed that most participants attributed success in both nursing and English to effort rather than innate talent. Thematic analysis highlighted the importance of consistent effort and communication skills, with clearer goals and more role models in nursing, and occasional instances of being overwhelmed due to academic demands. The study offers insights into balancing nursing-specific content and foreign language learning, recommending structured learning plans, mentoring systems, and a focus on the transferability of soft skills between domains to support nursing students in managing interdisciplinary challenges.

Key words: mindset beliefs, effort regulation, nursing education, Japan

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INTRODUCTION

Nursing students in Japan undergo a rigorous and standardized course of study (Lambert et al., 2004), which typically includes English as a foreign language (EFL) courses. On average, students complete three English courses during their four-year program (Porter, 2018), requiring them to balance the academic demands of both nursing and English. It is therefore important to examine students' perceptions of their learning abilities in both nursing and English and how these beliefs influence their academic behaviors. This study addresses a gap in understanding how Japanese nursing students perceive their learning abilities in both domains, with a particular focus on mindset (Dweck, 2000), self-efficacy (Bandura, 1977), and effort-regulation strategies (Pintrich et al., 1991). Through in-depth interviews with Japanese nursing students, this study aimed to explore these perceptions.

By understanding students' beliefs about their abilities and potential for growth, we gain insights into how to help them overcome fixed mindsets and enhance their learning experiences. Comparing mindsets in nursing and English may also reveal strategies to better support students in subjects they find less motivating.

LITERATURE REVIEW

Mindset and Self-Efficacy

Mindset theory is the psychological concept that people hold beliefs about whether their abilities can be developed (i.e., growth mindset) or are set (i.e., fixed mindset) (Dweck, 2000). Dweck (2000) posited that these beliefs influence the types of goals individuals pursue. Fixed mindset holders tend to seek performance goals, where success is seen as a validation of ability rather than effort (Ames, 1992). For performance-oriented learners, success is defined by outperforming others based on external standards, with a focus on recognition and avoiding negative evaluations (Ames, 1992; Dweck & Leggett, 1988).

In contrast, growth mindset holders are more likely to pursue mastery goals, where effort is tied to achievement (Ames, 1992). Mastery-oriented learners value learning for its own sake and aim to develop and improve their skills, measuring success by self-referential standards (Ames, 1992). Understanding how nursing students exhibit these tendencies across different subjects could reveal useful strategies to enhance both their English and nursing education.

Mindset theory is also related to self-efficacy (Black & Allen, 2017). Bandura (1977, 1994) defined self-efficacy as a belief in one's ability to successfully carry out tasks to achieve a goal. He identified four key sources of self-efficacy: mastery experiences (i.e., overcoming challenges through effort), vicarious experiences (i.e., learning from others' successes or failures), social persuasion (i.e., verbal encouragement), and emotional/physiological states with positive states boosting self-efficacy and negative states, such as stress or anxiety, undermining it. These self-efficacy sources may affect students differently in their nursing studies compared to their English learning.

Notably, individuals with a growth mindset tend to seek challenges and persevere regardless of their self-efficacy levels (Dweck & Leggett, 1988). However, those with a fixed mindset are more likely to experience helplessness when they perceive their abilities as inadequate (Dweck & Leggett, 1988). These dynamics are particularly relevant when comparing how nursing students manage perceived challenges in different academic areas.

Effort Regulation

Effort regulation refers to a learner's determination to complete tasks despite distractions or difficulties (Pintrich et al., 1991). It plays a key role in predicting academic success by reflecting goal commitment and the consistent use of learning strategies. Pintrich et al. (1991) also noted that students' use of strategies such as effort regulation can vary across courses, a point supported by Weis et al. (2013), who found that self-regulation may shift depending on the domain. For example, effort regulation among university students has been found to be significantly higher in nursing studies compared to

English as a foreign language studies (Patterson & Yukhymenko-Lescroart, 2026).

Effort regulation is influenced by various factors, including individual characteristics (e.g., mindset), contextual factors (e.g., feedback and task demands), and the interaction between these elements (Pintrich, 2000). Understanding these processes can help educators develop interventions that support effective learning and promote academic success, particularly for students who struggle with balancing the demands of both nursing and EFL courses.

English Language Education in Japan

English language education in Japan is mandated by the Ministry of Education, Culture, Sports, Science, and Technology from elementary through high school, with a focus on communication skills in the early years (Ministry of Education, 2014). However, in junior high and high school, the focus shifts toward grammar and vocabulary, driven by the demands of paper-based university entrance exams (Shintani, 2014). Families often supplement formal education with additional English instruction from *eikaiwa* (English conversation schools) and *juku* (cram schools), highlighting the persistent influence of these exams (Shintani, 2014).

At the university level, English remains compulsory for most first-year students, regardless of major (Gurney et al., 2023). Universities have increasingly adopted communicative language teaching and task-based learning, emphasizing real-life interactions (Ellis, 2013). However, the dominance of paper-based exams still affects motivation, particularly among students in professional majors, who tend to prioritize their major subjects over non-major courses like English (Johnson, 2013). The traditional focus on grammar and exams, with limited opportunities for practical English use outside the classroom, often leads to frustration and anxiety among learners (Andrade & Williams, 2009). Compounding this is students' self-perceived language ability, with some attributing their struggles to personal shortcomings (Ocampo, 2017).

Nursing Education in Japan

Nursing education is crucial in addressing Japan's aging population, making it one of the few expanding sectors in higher education. However, Japan struggles to produce enough nurses to meet growing healthcare demands (Japan Nursing Association, 2023). The profession is predominantly female, with 92% of nurses being women in 2020 (Ministry of Health, Labour, and Welfare-Japan, 2021). Over half of first-year nursing students reported having a family member in the profession, and many had pre-entry nursing experiences, such as healthcare work or hospitalization (Mukaihata, 2018). This highlights the role of personal background in shaping career choices within Japan's nursing sector.

The curriculum of four-year nursing programs in Japan is highly standardized, blending academic study with clinical practice (Lambert et al., 2004). It includes courses in scientific thinking, social studies, anatomy, nursing basics, and specialized fields (Japan Nursing Association, 2023). EFL training is typically part of the first-year curriculum. A survey of English curricula in 159 nursing programs found that 91% required at least one English course in the first year, though this percentage drops in later years (Porter, 2018). By the second year, 38% of programs required English, decreasing to 4% in the third year and 2% in the fourth, with English often becoming an elective (Porter, 2018).

To practice as a nurse in Japan, students must pass a national certification exam regulated by the Ministry of Health, Labour, and Welfare (Japan Nursing Association, 2023). Eligibility requires completing a nursing program approved by the Ministry of Education, Culture, Sports, Science, and Technology. Upon passing the exam, graduates can apply for lifelong licensure (Japan Nursing Association, 2023). Understanding the structured and demanding nature of nursing education provides critical insight into why students might exhibit differing mindsets and effort regulation strategies in their nursing versus EFL courses.

THEORETICAL FRAMEWORK

This study is grounded in *mindset theory* (Dweck, 2000), which posits that individuals' beliefs about the malleability of their abilities (growth vs. fixed mindsets) impact their goal orientation and behavior. Those with a fixed mindset may avoid challenges and perceive failure as a reflection of limited ability, while those with a growth mindset embrace challenges, viewing effort as a pathway to mastery.

Self-efficacy theory (Bandura, 1977) complements mindset theory by focusing on students' beliefs in their abilities to succeed. Self-efficacy influences effort, resilience, and persistence. Nursing students may feel confident in their nursing abilities but struggle with English due to low self-efficacy, even if they possess the skills necessary to succeed.

Effort regulation (Pintrich et al., 1991) provides further insight into how students manage their time and energy when faced with challenges. This study examines how these concepts interact to affect nursing students' learning behaviors, focusing on their effort regulation strategies and mindsets across both academic domains. Understanding these patterns can help educators tailor interventions to support students, particularly those facing academic challenges in both nursing and EFL contexts.

The Present Study

The purpose of the study was to explore and develop an understanding of individuals' learning beliefs and experiences regarding their English and nursing studies (Blaxter et al., 2001; Creswell, 2014). This research was guided by the following two research questions:

1. How much do nursing students attribute their ability in English and nursing to natural talent and effort?
2. How do nursing students perceive their mindsets and effort regulation, including facilitating factors and barriers, related to their English language learning and nursing studies?

METHODS

Methodology

A pragmatic approach, employing mixed methods, was adopted for this study to gain insights about the real-world learning experiences and practices of the participants (Creswell, 2014). The initial interview question was quantitative, focusing on identifying general trends in students' learning beliefs (Blaxter et al., 2001). Subsequent questions were qualitative, facilitating exploration into individual learning beliefs and experiences (Blaxter et al., 2001; Creswell, 2014). The discussion integrates the results of both methods, providing a comprehensive understanding of the research findings. All interviews were conducted in Japanese by the first author who is bilingual.

Research Context

The present research was conducted at a private four-year health-care focused university located in central Japan. The university's School of Nursing, from which participants were recruited, comprised 642 students (92% female) at the time of data collection. Aside from foreign language courses, the language of instruction for all courses is Japanese.

Participants

A total of 10 participants, all female Japanese nursing students, took part in the study. Among them were four first-year students, three second-year students, and three third-year students, all within the traditional age range (i.e., 18 to 21) of the four-year program. To protect their confidentiality, all participant names used in this paper are pseudonyms.

Data Sources

A total of 10 one-on-one interviews were conducted, with seven people responding and participating after the first recruitment call and an additional three people after the second call. No male students

responded to either recruitment call, but this was not particularly surprising given the predominantly female student population.

Semi-structured interviews were conducted in order to gather rich details on participants' mindsets and effort regulation. The interviews were semi-structured in that the same core set of questions was asked of all the participants in the same order, but follow-up questions were also asked based on the participants' responses. After the initial closed-ended quantitative questions about the degree to which the participants attributed ability in English and nursing to effort or talent, the interview protocol consisted of eight core open-ended questions related to four main areas: goals, success, motivation, and responses to boring/difficult materials. Interviews were split into two parts: the first focused on participants' English studies, and the second on their nursing studies. Both halves included similar questions, tailored to the respective domains under discussion. Interviews averaged 35 minutes, ranging from 26 minutes to 45 minutes. Interviews were conducted in Japanese and were audio-recorded with participants' consent.

Procedure

Data collection was conducted as a component of the first author's doctoral research under the supervision of the second author. The recruitment of participants commenced following the receipt of ethics approval from both the British university supervising the thesis and the Japanese university where the data was gathered. To contact potential participants, the researchers obtained permission from the Japanese host university to send an invitation to all potential participants using their student email addresses. As an acknowledgment of their time and contribution, participants received a school bookstore card valued at 1000 Japanese yen.

Data Analysis

Quantitative data for RQ1 were analyzed using descriptive statistics, while qualitative data for RQ2 were analyzed through thematic analysis following Braun and Clarke's (2012) six-stage process. The second author provided feedback and contributed to reviewing the themes.

For the qualitative analysis, first, verbatim transcripts of the interviews were created, with repeated listening and reading to ensure familiarity with the data. The Japanese transcripts were translated into English for quotations by the first author, who is bilingual, in consultation with a bilingual university colleague whose first language is Japanese. This process ensured accuracy and contextual sensitivity in the translation.

In the second stage, both versions were annotated to capture recurring or significant responses related to the research question, ensuring consistency with participants' original expressions. In the third stage, codes were developed from the annotations and organized by participant and question into an Excel table for easy comparison. The fourth stage grouped the codes into broad themes based on participants' perceptions of mindset and effort regulation in English and nursing, documented in a Word file. The fifth stage categorized the codes by frequent, contrasting, or notable responses. In the final stage, a report was written, linking the findings to the research question, comparing results across domains, and selecting representative quotations.

Data Credibility

To ensure transparency, the study's purpose and procedures were clearly explained to participants in Japanese, both orally and in writing. A welcoming and safe environment was created for open, voluntary, and confidential participation. Care was taken to avoid leading questions or judgmental attitudes. The semi-structured approach ensured consistency while allowing flexibility for new lines of inquiry.

Data analysis followed Braun and Clarke's (2012) six-stage thematic process, chosen for its systematic identification of patterns. Data saturation was reached after ten interviews (Merriam & Tisdell, 2016). Validity was strengthened through triangulation, combining quantitative data from closed-ended questions with qualitative interview data (Bryman, 2012), deepening the discussion's credibility.

RESULTS

Participants were asked to assess the role of effort and natural talent in language acquisition and nursing ability. Table 1 presents their responses to the interview questions: “What percentage of being good at English would you attribute to natural talent, and what percentage to effort?” and “What percentage of being good at nursing would you attribute to natural talent, and what percentage to effort?”

Table 1

Attribution of Ability in English and Nursing to Natural Talent and Effort as a Percentage

Pseudonym	English			Nursing			Domain Requiring Greater Talent
	Natural Talent (%)	Effort (%)	Greater Attribution	Natural Talent (%)	Effort (%)	Greater Attribution	
Akari	60%	40%	Talent	70%	30%	Talent	Nursing
Ema	90%	10%	Talent	60%	40%	Talent	English
Haruka	30%	70%	Effort	20%	80%	Effort	English
Ichika	10%	90%	Effort	0%	100%	Effort	English
Kana	0%	100%	Effort	10%	90%	Effort	Nursing
Misaki	0%	100%	Effort	30%	70%	Effort	Nursing
Nanami	5%	95%	Effort	0%	100%	Effort	English
Rin	5%	95%	Effort	5%	95%	Effort	Same
Sakura	10%	90%	Effort	20%	80%	Effort	Nursing
Yuna	20%	80%	Effort	10%	90%	Effort	English
(Average)	23%	77%	-	22.5%	77.5%	-	-

Note. Participants’ have been assigned pseudonyms to protect confidentiality.

These questions aimed to roughly gauge participants’ mindsets, with a higher emphasis on effort reflecting a growth mindset, a greater focus on talent suggesting a fixed mindset, and an equal emphasis indicating a mixed mindset. Although quantitative in form, the questions were designed to prompt qualitative discussion. Some participants, however, challenged the premise of the questions. For instance, Misaki argued that no one is born with innate knowledge of any language, including their native tongue, emphasizing that language acquisition always requires effort. Ema, on the other hand, described “natural-born talent” as a “sense” for language, acquired through immersion rather than deliberate effort. Sakura viewed talent

as a personality trait, suggesting that outgoing individuals are more likely to excel in English by seeking speaking opportunities. Some participants also appeared to conflate personality traits with talent in the context of nursing, perceiving traits such as social ease or compassion as essential to success. Kana, for example, explained, “Nursing involves relationships.... I don’t think patients can depend on nurses who can’t communicate.... Personality and personal experience are quite important.”

Overall, participants shared similar views on the roles of effort and talent in both English and nursing. The majority (eight out of 10) considered effort more critical than talent for excelling in English, with two attributing success entirely to effort. While caution is needed in interpreting these responses, it is clear that most participants placed greater value on effort than talent in learning English. Similarly, in nursing, eight out of 10 participants believed effort played a more significant role than natural talent. Two participants credited 100% of their nursing success to effort. Sakura, who attributed 80% to effort and 20% to talent, echoed her nursing teachers’ belief that anyone can become a nurse with enough effort.

Comparing participants’ views across the two domains, only Rin assigned equal importance to effort and talent in both English and nursing. Of the remaining nine participants, four believed more effort was required for English than nursing, implying they saw nursing as more reliant on talent. Conversely, five felt more effort was needed for nursing, suggesting they viewed success in English as more talent-based.

Notably, no participants held opposing views about the importance of talent versus effort across the two domains. Broadly, participants fell into two groups: “talent believers” and “effort believers.” Within these groups, five different belief combinations emerged:

1. Talent believer, but with more talent needed for nursing: Akari
2. Talent believer, but with more talent needed for English: Ema
3. Effort believer, but with more talent needed for nursing: Kana, Misaki, Sakura
4. Effort believer, but with more talent needed for English:

Haruka, Ichika, Nanami, Yuna

5. Effort believer, with equal weighting for English and nursing:
Rin

Perceptions of Mindsets and Effort Regulation

Table 2 presents themes and their associated categories that emerged from the open-ended interview questions regarding goals, success, and effort regulation in English and nursing.

Table 2

Themes Related to Perceptions of Mindsets and Effort Regulation in English and Nursing

Theme	Categories: English	Categories: Nursing
1. Goals for study	<ul style="list-style-type: none"> • Obtaining English qualifications • Learning conversational English • Learning English for use as a nurse • Learning English for travel abroad 	<ul style="list-style-type: none"> • Passing the nursing certification exam • Developing a firm understanding of fundamental nursing knowledge • Gaining competence/applicable skills in preparation for a nursing career • Understanding patients' needs/learning effective patient communication

2. How success is achieved	<ul style="list-style-type: none"> • Interest in/liking English • Sense of purpose • Consistent effort • Confidence/belief in one's ability • Outgoing personality • Not worrying about mistakes • Influence of other people • Experience/opportunity for use 	<ul style="list-style-type: none"> • Interest in/liking nursing • Sense of purpose • Consistent effort • Self-direction • Human focus • Acquiring a firm knowledge base • Ability to apply knowledge • Familiarity with healthcare context
3. Sources of motivation	<ul style="list-style-type: none"> • Interest and enjoyment • Getting high scores • Avoiding poor scores • Competition with others • Personal goals 	<ul style="list-style-type: none"> • Interest and enjoyment • Getting high test scores • Maintaining grades • Avoiding poor test scores • Gaining praise • Avoiding criticism • Desire to obtain qualifications • Realizing their dream
4. Sources of amotivation	<ul style="list-style-type: none"> • Feeling tired • Lack of interest • Frustration when effort is not resulting in success • Busy with other studies • Frustration with own lack of ability • Difficult or boring materials 	<ul style="list-style-type: none"> • Feeling tired • Lack of interest • Frustration when effort is not resulting in success • Overwhelming volume of work • Criticism
5. Response to boring materials	<ul style="list-style-type: none"> • Using alternate materials • Creating own tasks • Taking a break 	<ul style="list-style-type: none"> • Using supplemental materials • Setting own questions • Taking a break • Quitting

6. Response to difficult materials	<ul style="list-style-type: none">• Reviewing past material• Use of alternate materials• Help-seeking:<ul style="list-style-type: none">○ Peers○ Teachers	<ul style="list-style-type: none">• Reviewing past materials• Using supplemental materials• Help-seeking:<ul style="list-style-type: none">○ Peers○ Teachers○ Family• Consistency in study
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Note. Categories have been arranged for ease of comparison across domains.

Theme 1: Goals for Study

Participants identified four primary goals for English studies: conversation, travel, qualifications, and application to nursing careers. The predominant aim, stated by seven participants, was improving conversational skills to assist foreigners, particularly in nursing. Sakura and Yuna highlighted using English with foreign patients. Others, such as Kana and Misaki, mentioned travel and study or work abroad. Ema, Rin, and Sakura aimed to obtain English proficiency certifications.

In nursing studies, goals included mastering fundamentals, building career-applicable skills, and communication for patient care. Participants emphasized acquiring knowledge and practical abilities for professional competence. Yuna mentioned developing a “nursing sense,” while others, such as Nanami, aimed to pass the certification exam or ensure smooth career transitions. Both English and nursing goals prioritized communication, whether aiding patients or interacting with foreigners. Some anticipated using English professionally with foreign patients in Japan or abroad.

Theme 2: How Success is Achieved

Participants emphasized diverse factors for success in English. Enjoying English and maintaining interest were key motivators. Nanami noted that liking English helped her scores, and Yuna observed that those with clear goals, such as travel or nursing, tended to perform better. However, some participants also reflected on

negative experiences in junior high or high school that hindered their motivation. For example, Ichika explained that she had struggled with grammar and felt frustrated when she was unable to use English effectively during a trip abroad, which led to her disliking English. This suggests that while travel may be a positive motivator, it can also have a negative effect without adequate preparation or support. Nevertheless, Ichika said she found university classes more enjoyable due to the teacher's supportive approach and increased opportunities to speak in English, which helped rebuild her motivation.

Having a growth mindset and opportunities to use English were also crucial. Rin noted that confident learners willing to make mistakes were more successful, while a lack of belief in improvement led to withdrawal. Outgoing personalities, effort, and consistent study habits were additional factors. Participants acknowledged that lack of study resulted in poor test performance, and several emphasized setting regular study time.

Theme 3: Sources of Motivation

For English, motivations included achieving high scores, avoiding poor performance, peer competition, and personal goals. Half were driven by test scores, while others were motivated by travel or personal enjoyment. Peer competition was a factor for four participants, including Ema, who aimed to rank first in her classes.

In nursing, motivations included earning qualifications and realizing career dreams. Misaki envisioned her future as a nurse, while Nanami aimed for the national exam. Praise from nursing professors and avoiding criticism were also significant, especially for Yuna. While enjoyment and performance were important for both subjects, praise and criticism were unique to nursing. Nursing goals were often more concrete, while English goals were hypothetical, such as dream vacations abroad.

Theme 4: Sources of Amotivation

Nine participants experienced amotivation in English, citing difficult materials, fatigue, prioritizing nursing studies, or frustration when efforts did not yield results. Sakura and Haruka expressed

frustration over learning words they would not use or struggling with comprehension despite review.

For nursing, the main challenge was the overwhelming workload. Haruka described managing multiple assignments as “tough,” and Yuna doubted her career choice at times due to the pressure of memorizing medical terms. Criticism from teachers also led to demotivation. While frustration and fatigue were common across both subjects, nursing’s heavy workload often spilled over, reducing motivation to study English.

Theme 5: Response to Boring Materials

To handle uninteresting English materials, participants personalized tasks, used alternative resources, or took breaks. Yuna connected materials to future use, while Nanami focused on unfamiliar aspects. Similar strategies applied to nursing, though group study was unique to nursing. Sakura, Misaki, and Rin mentioned collaborating with friends to work on nursing problems. Rin added that studying with friends helped to relieve stress. Overall, participants actively adapted their approaches when materials felt unengaging.

Theme 6: Response to Difficult Materials

Strategies for difficult materials were similar to those for boring ones. Yuna found difficult materials motivating when linked to future use, like her nursing English class. For challenging English texts, participants used supplemental materials, reviewed earlier lessons, or sought help from teachers and friends. Misaki consulted teachers, though Ema sometimes did not ask for help.

In nursing, reviewing foundational materials and seeking supplementary resources, such as nursing study guides and online videos, were common strategies. Help-seeking was more frequent for nursing, with several participants turning to classmates or teachers. Four participants had family members in healthcare they could consult. Some participants, such as Nanami, expected nursing materials to be challenging and adopted structured study routines, such as reviewing notes daily or studying at fixed times each week, to

avoid last-minute cramming. Overall, participants used a combination of resources and support networks to manage difficult or boring materials.

Summary of Findings

Interviews revealed that most participants attributed their abilities in both English and nursing more to effort than talent. Opinions were evenly split between those who believed English relied more on talent than nursing and those who believed the reverse, with one person viewing them equally. Success in both fields was seen as requiring consistent effort due to the large volume of knowledge, though no one fully dismissed the role of talent. Sociable individuals were perceived as more suited to both subjects. Participants also emphasized liking the subject and having a clear sense of purpose, though goals for nursing, tied to professional plans, were more concrete than the more aspirational goals for English.

In terms of effort regulation, similar strategies were used for handling challenging materials in both subjects. However, help-seeking was more common for nursing, with participants more likely to consult someone at home. Motivation sources were similar, but feeling overwhelmed by study volume was unique to nursing, which also reduced motivation to study English.

DISCUSSION

This study explored Japanese nursing students' perspectives on mindsets and effort regulation, focusing on factors influencing their English proficiency and success in nursing. The findings suggest that participants had a clearer vision of applying their nursing skills in the future than using English, which may explain differences in growth mindset and effort regulation between the two domains (Patterson & Yukhymenko-Lescroart, 2026). Participants expressed concrete goals for nursing, such as passing certification exams and developing patient care skills, while their English goals were often vague, like traveling abroad. The more immediate goals in nursing likely increased its perceived value and contributed to stronger effort

regulation (Pintrich et al., 1999). This aligns with Todaka's (2013) findings that concrete goals enhance motivation in English study.

Some participants had negative experiences with English in high school, where classes focused on grammar and vocabulary for test preparation, rather than communication. Such performance-oriented goals can be disheartening for growth mindset learners, who value competence development (Dweck, 2000). For fixed mindset holders, these experiences may have led to learned helplessness (Dweck & Leggett, 1988).

In contrast, participants shared inspiring experiences related to nursing that motivated them to pursue the field. Family members' healthcare experiences, either as patients or nurses, often influenced these decisions. Mukaihata (2018) found that "pre-entry" healthcare experiences were linked to higher career maturity, which may be worth exploring in connection with mindsets.

Participants also noted that the heavier workload in nursing provided more opportunities for practice and mastery experiences (Bandura, 1994). However, this also led some to prioritize nursing over English, reducing their effort and confidence in English, and decreasing their opportunities for mastery experiences (Bandura, 1994).

A notable difference between the two domains was that four participants had family members in healthcare to help with nursing studies, but none had similar support for English. Having a healthcare professional in the family may provide role models and social persuasion, which Bandura (1994) linked to stronger self-efficacy and growth mindsets (Black & Allen, 2017).

IMPLICATIONS FOR AN INTERNATIONAL AUDIENCE

English language proficiency is vital in global nursing education, as English serves as the lingua franca for medical communication (Chan et al., 2022; Tweedie & Johnson, 2019). Many Asian and European nursing programs incorporate English language training (Camacho-Bejarano et al., 2013; Scheele et al., 2011). In English-speaking countries, such as Australia, Canada, and the United States,

the increasing number of nursing students who speak English as an additional language (EAL) and the correlation between English proficiency and academic success highlight the need for language support in nursing education (Glew, 2013; Henry, 2023; Ho & Coady, 2018; Hopkins & Stephens, 2021).

Teachers of EAL nursing students can help their students connect English language learning to nursing by encouraging reflection on the commonalities between subjects. For instance, participants in this study noted the importance of communication in both English and nursing, as well as the need for consistent effort. Teachers should highlight how soft skills developed in language classes, such as communication, cultural awareness, and critical thinking, transfer to nursing and vice versa. Furthermore, participants in the present study emphasized that mastering both nursing and English requires time and practice, reinforcing the need for regular study schedules and learning plans that break large tasks into manageable parts.

While participants in the present study identified commonalities between the subjects, some mentioned the influence of family members in healthcare professions on their nursing studies, a support system not paralleled in English. These family members provided help and encouragement. For students lacking such support in either subject, mentoring systems could be valuable. Facilitating interactions between lower-year nursing students and upper-year peers or graduates using English in nursing can offer social modeling (Bandura, 1994). Such near-peer role models can motivate students, bridge nursing and English, clarify goals, and highlight pathways to success (Murphey & Arao, 2001).

In terms of curriculum design, teachers could introduce role models through guest speakers or case studies, and include reflective tasks that encourage students to connect language learning with their future nursing careers. Affective support can also be fostered through pair-work (Koga, 2010) and small-group activities (Crosby, 2024), which help build a sense of cooperation. Teachers are encouraged to create opportunities for students to use English in meaningful, nursing-relevant contexts, such as hospital dialogue writing and role-playing activities (Kawashima, 2023), simulated clinical scenarios, and interactions with international students (Atsumi, 2017).

Teachers can cultivate growth mindsets by establishing expectations for growth, persistence, and learning from mistakes while modeling these attributes themselves (Dweck, 2000). While growth mindsets are associated with effort, teachers should exercise caution in over-emphasizing effort as adolescents may interpret praise for effort in times of failure as an indication of low innate ability (Amemiya & Wang, 2018). Moreover, as evidenced in the present study, most participants already recognized the importance of effort in learning English and nursing, making further emphasis redundant. Instead of focusing primarily on effort, it may be beneficial to emphasize other elements that promote growth mindsets, such as strategy development and help seeking (Yeager & Dweck, 2020).

LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

The relatively small sample size in the quantitative portion is acknowledged, though the initial quantitative question effectively sparked discussion for the qualitative analysis. Purposive sampling ensured sufficient participants for the qualitative portion, but no fourth-year students participated. This may be due to their perception of being “finished” with English, as no fourth-year English courses are offered, or their demanding schedules, which include clinical practicums and preparation for the national nursing certification exam. Moreover, while the nursing population in Japan is predominantly female (Ministry of Health, Labour, and Welfare-Japan, 2021), the absence of male participants limits the generalizability of the findings. Future research should include a broader range of participants to better understand differences related to gender and academic year.

The present study focused primarily on participants’ mindsets regarding effort and talent, but did not extensively explore other psychological factors that might influence learning experiences. Future research could examine how other factors, such as grit, learned helplessness, and emotional resilience, interact with mindset in shaping nursing students’ approaches to language learning and academic challenges. Furthermore, while the study identified challenges in balancing nursing curriculum demands with English

studies, a more in-depth examination of how students' backgrounds (e.g., family influence, academic history, socio-economic background, personal experiences) shape their beliefs about effort and success could provide valuable insights.

CONCLUSION

The present study aimed to explore and develop an understanding of female Japanese nursing students' learning beliefs and experiences concerning their nursing and English studies. Through semi-structured interviews exploring students' perceptions of their mindset, self-efficacy, and effort regulation across the domains of nursing and English, it was found that effort and consistency were valued for success in both. However, key differences emerged including clearer goals in nursing, greater access to role models in healthcare, and the overwhelming study load in nursing, which diverted their focus from English. By deepening our understanding of the similarities and differences in their English and nursing experiences, this study provides insights into the motivations and challenges of Japanese nursing students. Ultimately, these findings serve as a steppingstone toward fostering a supportive learning environment that nurtures students' learning beliefs and fosters their academic success.

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