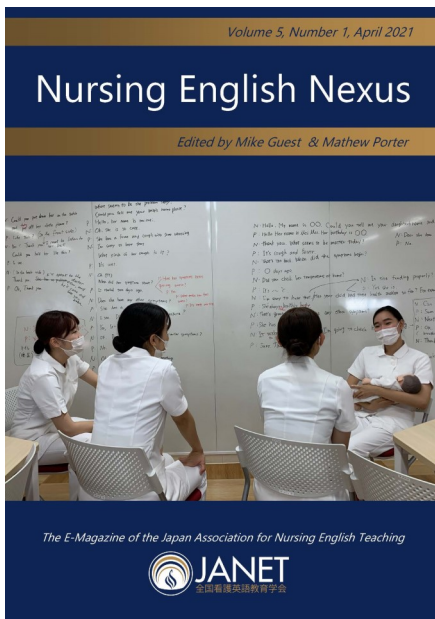# Cognitive and Metacognitive Awareness Prompts as Core Components of a New English Language Curriculum for Nursing Students in Japan: A Model

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Cognitive and Metacognitive Awareness Prompts as Core Components of a New English Language Curriculum for Nursing Students in Japan: A Model

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Abstract: Due to the requirements for nursing institutions to submit their curriculum plans to the Japanese Ministry of Education, Culture, Sports and Technology (MEXT) as part of the Act on Public Health Nurses, Midwives, and Nurses, proposals for new nursing English curricula often emphasize the role of English as a tool facilitating nurses' communication with patients who cannot speak Japanese and participation in international nursing academic and professional activities as a way to adhere to the governmental guidelines announced in 2009 and 2014 (Porter, 2018). In the present review, I examine the use of self-reflective cognitive and metacognitive prompts as learner-centered strategies to increase engagement as well as knowledge retention through the development of cognitive and metacognitive awareness. After examining the theoretical framework underpinning the use of cognitive and metacognitive prompts in language acquisition, I will introduce the new English curriculum that we have developed for undergraduate and graduate nursing students at Chiba University, and suggest ways of utilizing these prompts within other existing curricula.

Keywords: learner motivation, effort, ideal L2 self, language proficiency

The literature produced in Japan and regarding Japanese students' acquisition of English as a foreign language (EFL) has, in the last decade, increasingly focused on learner motivation (C. A. Brown, 2017), identity (McEown et al., 2017), and emotional development (Agaësse, 2017), as well as cognition (Yasuda, 2019) and the role of metacognition (Tsuji, 2015). This body of work mirrors a modification of the instructional criteria and outcome recommendations established by the Japanese Ministry of Education, Culture, Sports, Science, and Technology (Ministry of Education, Culture, Sports, Science and Technology, 2009, 2014) and concurrent initiatives introduced by Japanese universities to internationalize (H. Brown, 2014). In the international context, this research matches trends occurring in applied linguistics, psycholinguistics, and writing studies (Camp, 2012; Cooper, 2011; Duff, 2010; Egel, 2009).

Meanwhile, English Medium Instruction (EMI), Content and Language Integrated Learning (CLIL), active learning, and flipped classroom pedagogies have become widespread methods guiding EFL course and curriculum designs in Japan (Asaka et al., 2018; H. Brown, 2014; Fujimoto-Adamson & Adamson, 2018; Jones & Palmer, 2017; Rose & McKinley, 2018). Although uneven implementation and lack of coordination in administering these pedagogies is cited as inhibiting their effectiveness (Jones & Palmer, 2017). I believe that English curricula should aim at promoting these types of process learning rather than outcomes.

The goal of this article is to present a review of the scholarship about learner autonomy in reflection pedagogy for English for Specific Purposes curricula, as well as to offer an example of curriculum design utilizing cognitive and metacognitive prompts aimed at offering an enhanced quality of both instruction/learning and learning outcomes for Japanese nursing students.

Justification for the new nursing English curriculum at Chiba University

Porter (2018) surveyed the 2017-2018 curricula of 159 nursing programs from 156 private universities in Japan and subsequently contrasted their availability and content with the needs addressed in Willey, McCrohan, Nishiya, and Tanimoto

Figure 1

Organigram for the new nursing English curriculum
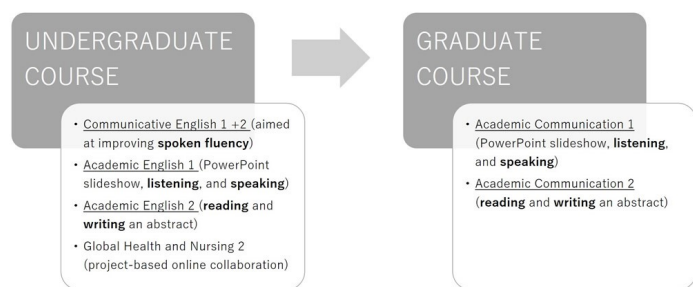
Five elective classes are offered to undergraduate students from years 2 to 4: Communicative English 1 and 2, offered to second to fourth year nursing students during the summer semester; Academic English for Nursing 1, offered to third year students during the winter semester; Academic English for Nursing 2, offered to third year students during the summer semester; and Global Health and Nursing 2, an online collaboration with students at partner universities abroad offered to second to fourth year nursing students during the winter semester). Two elective classes are offered to graduate students from both the master's and doctoral degree programs: Academic Communication 1, offered during the winter semester and Academic Communication 2, offered during the summer semester.

(2016). The latter study showed that most programs were addressed to first and second-year students (158/159 and 128/159 respectively) and focused primarily upon medical terminology, oral communication, and reading. Non-medical English content included verbal communication, listening or reading/comprehension, and test training. A minority of the syllabi focused on writing, study abroad, and business English. Porter concluded that more language courses should be made available to third and fourth-year nursing students, with an integration of nursing-specific contents in the curricula. He also suggested that a stronger emphasis on cross-cultural nursing would encourage students to understand the healthcare needs of foreign patients to provide appropriate care.

Given these recent findings, we proposed a new nursing English curriculum to be made available to nursing students running from the second year of the undergraduate program to the third year of the postgraduate program, from April 2019 at Chiba University (Figure 1). The curriculum includes seven elective courses using English as a medium of instruction. At the undergraduate level, two courses focus on

Figure 2

The four strands
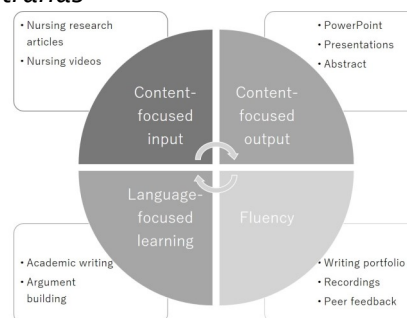
Each class in the new nursing English curriculum attempts to balance meaningful input and output with language-focused instruction through an assortment of class activities and homework. Related class activities involving task repetition and the production of student portfolios are aimed at developing fluency and automaticity.

building spoken fluency, two courses focus on the development of academic English skills for oral presentation and writing, and one focuses on cross-cultural comparisons of healthcare systems, combining online international collaboration and a student exchange program.

At the graduate level, two courses focus on medical English for research purposes, with an emphasis on the norms of scholarly communication through oral presentations and/or academic writing.

Content of class activities for the new nursing English curricula

All courses in the new English curriculum for our nursing students cover both basic and advanced verbal communication, the former through collecting information from patients and casual talk and the latter through medical terminology and using academic arguments in discussion. All courses also focus on academic writing skills, through reading research reports and writing abstracts. All courses aim to balance Nation's (2007) "four strands" of language learning: content-focused input/output, language-focused learning, and fluency (Figure 2). Through contact with authentic texts or videos from graduated levels of difficulty (CEFR A2-B1 for oral communication, CEFR B1-C1 for written texts), the courses aim at making the nursing contents

accessible to students at a broad spectrum of proficiencies.

Related class activities involving task repetition and the production of student portfolios are aimed at developing fluency and automaticity. Students use audio or video recorders in class and at home to document elements of speech or dialog performances. The same tools are used in repetition activities, with the first speech produced in three minutes and the subsequent iterations of the same content restricted to two minutes (3/2/2 pattern) as fluency building exercises.

Activities in all seven courses include meaningful nursing-related tasks, such as examining the role of small talk in nurse-patient interactions in order to collect information, establish a personal rapport quickly with the patient, or lessening the impact of unpleasant patient experiences (Macdonald, 2016). Self-reflection activities using cognitive and metacognitive prompts are either completed before class activities to bring students' attention to possible gaps in knowledge, during activities to allow students to compare and contrast their personal knowledge about nursing English with that of their classmates, or after class activities to assess their understanding of the language points.

One example of a class activity is illustrated in Figure 3. This speaking activity involves a sample dialogue wherein the nurse reacts to what the patient is saying (with the relevant text in italics). Students practice acting out the dialog three times while recording each attempt and discuss the function of the text in italics regarding the exchange of information between the nurse and the patient.

Implementation of the courses involved blended learning, with lectures and materials made available online prior to activities in class (Kirk & Casenove, 2016). Online materials were made by teachers to introduce stylistic and syntactic norms of nursing English that are then developed and practiced through collaborative tasks. The purpose of focusing in-class activities around student-centered tasks is to increase engagement and retention among participants (Freeman et al., 2014). In-class activities are built following graduated levels of cognitive difficulty, from simple quizzes (to assess comprehension of the online materials) to collaborative writing and peer reviews. The collection of student output, with its associated feedback from classmates or the instructor, constitutes a portfolio that reflects the students' progress throughout the courses. The portfolio can include successive audio recordings, such as can be seen in Figure 3, or written abstracts that are revised over time.

Cognitive and metacognitive prompts for the new nursing English curricula

General views

Benson (2011) has defined learner autonomy as the "capacity to take charge of one's learning" (p. 16) and subdivides that control into three components: learning management, learning content, and cognitive processes. In language learning, learner autonomy is connected to developing metacognitive awareness, awareness of the learner's own learning processes, and incorporates self-awareness, language awareness, cognitive awareness, social awareness, and cultural awareness (Ellis, 2000). Cognitive awareness refers to knowledge about learning strategies and processes involved in language acquisition.

Both cognitive awareness and metacognitive awareness can be approached in class or cultivated outside the classroom through interaction with peers, and are connected to affective factors that play into learners' motivation (Hurd, 2008). The goal of cultivating metacognitive awareness is for students to develop the ability to identify and address areas of weakness and subsequently chart a course geared towards more efficient learning strategies (Bernat & Gvozdenko, 2005; Horwitz, 1999; Mynard, 2012;

Figure 3

Communicative English I sample reading material

Here is a dialog between a nurse named Yuko and a patient called Yona. Yona is visiting a hospital for a consultation. Look at the way *Yuko reacts to what Yona is saying.* In this context, can you explain the function of these short comments?

Yuko works as a nurse in a Japanese hospital. Yona, a student, goes to visit that same hospital after falling on the pavement on a rainy day.

Yuko: Hi, I'm Yuko Osada. I am a charge nurse here at ward C. Can I help you?

Yona: Hi, Yuko. I'm Yona. Good to meet you. And yes, I need to see a doctor because my ankle hurts.

Yuko: *Oh it is quite swollen and red!* How did that happen?

Yona: I was walking to school but I slipped on the wet pavement and twisted my ankle. I am worried because it suddenly became so big.

Yuko: *I understand your concern.* Let me have a closer look. Could you just raise your foot a little bit so that I can feel it?

Yona: Like that?

Yuko: *That's right. It's quite warm, isn't it?* Hmm I will call the doctor to inspect it more in details. It won't take long.

An example of reading material for the Communicative English 1 course offered to second year undergraduate students at Chiba University. This course is focusing on spoken English skills for nurses working at clinics or hospitals. The reading material is presented after students are made aware of the notion of "small talk" in the nursing context through a short lecture conducted either on-demand or face-to-face. Students are asked to read the dialog and discuss in Japanese or in English about the meaning of the text that is italicized.

Wenden, 1998). In the past, the efficacy of cognitive and metacognitive awareness prompts has been studied through the examination of corrective feedback (Lee, 2013; Sato, 2013), questions prompts during collaborative processes (Näykki et al., 2017), or languaging (Suzuki, 2016), among other active learning techniques.

For English as a Foreign Language (EFL) learners, research on metacognitive awareness has focused on self-efficacy as a driver of motivation (Flavell, 1979), instrumentality as the conscious control that learners perceive regarding the effectiveness of their strategies (Dickinson, 1995), and purpose as the value that learners place into their study (Graham, 2006).

Implementation

In the case of Japanese nursing students learning English as a lingua franca, we believe that improving both cognitive awareness and metacognitive awareness can be achieved through the implementation of scaffolded collaborative activities, with regular reflection prompts given as homework. In all seven courses of the new English curriculum, we introduced a variety of cognitive and metacognitive prompts at each step of the production of students' assignment portfolios. These prompts invited students to reflect on their communication processes, the outcomes of their learning strategies, and their plans to improve the efficacy of these learning strategies. All prompts were communicated in English and aimed at 1) allowing students to self-identify their gaps in knowledge and 2) suggesting ways to revise any insufficient grasp of the English language or to improve their communication skills.

The prompts can be classified into three categories, which are mixed throughout the duration of the classes. The first category of prompts consists of correcting syntactically erroneous statements or selecting a correct word/ phrase to complete a statement (e.g., in Figure 3, Yona was walking *from* school). The second category of prompts relies on students explaining the reason why a sentence is semantically incorrect (e.g., in Figure 3, Nurse Osada displays empathy). The last category of prompts allows students to give their opinions on their understanding/adherence to the norms of nursing English. As such, the cognitive and metacognitive prompts can help students revise any insufficient grasp of the English language without the need for immediate teacher corrective feedback, which is suggested as a suitable model for scientific knowledge in STEM disciplines (Williams et al., 2016).

In the sample activity shown in Figure 3, a cognitive prompt focusing on pragmatic awareness invites students to focus on the function of specific words or clauses in the nurse's speech (just, little bit, and it won't take long). This third-category prompt is given to students after a class discussion regarding the roles of small talk in the dialogue (i.e., lessening the impact of unpleasant experience of a patient who broke her

ankle and showing understanding of both the clinical information and the emotional state of the patient). An alternate prompt consists of having students work in teams to translate the dialogue into Japanese, which leads them to reflect on the linguistic and cultural contrasts related to talking about physical pain in nurse-patient interactions. A metacognitive prompt asks students to state their preferred strategy to memorize the newly studied pragmatic expressions (physically acting out the words, making flashcards, or associating the English expressions with Japanese equivalents) that they may have encountered during the class.

The way the prompts are presented to students also varies between on-demand online quizzes, with immediate feedback prepared for each possible student response (Chou et al., 2017), group activities in class where students propose explanations and receive comments from peers, and self-reflective written assignments submitted online (Moore & Iida, 2010). All online tasks are centralized on a Learning Management System that all students at Chiba University can access.

Expected outcomes

Among the practical language outcomes hoped for the new curriculum is to expose students to a variety of nursing-related content in English to communicate medical information, both written and oral, as well as develop their communicative strategies to be able to convey that information in PowerPoint presentations, non-rehearsed discussions, or written texts such as research abstracts. The cognitive and metacognitive prompts are designed to support students in assessing their proficiency levels and to enable a deeper understanding of the syntactic and stylistic norms of nursing communication in English (and even in Japanese). Hopefully, combining graduated reading and listening materials with cognitive/metacognitive prompts can promote student engagement with the learning materials and

reduce the rate of demotivation regarding language education.

Finally, these cognitive and metacognitive tasks are expected to help provide information about students' learning outcomes regarding their understanding of academic conventions for argumentation, ability to analyze nursing communication as critical thinking, and discussion in both Japanese and English. Peer review activities are combined with self-assessment tasks that follow similar guidelines and checklists which allow students to improve the accuracy of their production. The similarity in guidelines and checklists enables students to contrast their opinions on their proficiency with the opinions of others (classmates or the instructor). These prompts allow for an account of students' oral and written production throughout the duration of the course, thus creating a valuable snapshot of student progress (or lack thereof).

Conclusion

This review highlights the benefits of integrating cognitive and metacognitive prompts in combination with student-centered activities in both the classroom and online. Compared to textbook-based courses, this new curriculum design gives students a structure to exercise agency in the choice of reading and video materials to maximize the amount of meaningful input and enable extensive reading and listening. In addition, the prompts are crafted to allow students to critically assess their strengths and weaknesses and focus their attention on the most relevant learning goals.

In April 2019, we launched a pilot study to assess the impact of this new curriculum. We expect that the cognitive and metacognitive prompts, combined with the blended flipped learning design, will improve students' attitudes towards using English in nursing research and clinical practice as well as improve their mastery of the norms of nursing English for clinical or

academic purposes. Preliminary findings indicate that all students perceived that their performance had improved throughout the courses and that they could discover linguistic and cultural differences in the way nurses communicate (with patients or with international colleagues). A successful implementation of the cognitive and metacognitive prompts could lead students to contrast nursing communicative techniques more effectively in both Japanese and in English as well as increase motivation favorable to long-term English learning.

Currently, the impact of the new English curriculum is limited by its elective status which might lead only those students who are initially more proficient in English or more motivated to register. Therefore, the hoped-for impact of the cognitive and metacognitive prompts on students may not be relevant for the bulk of the nursing student population. Ultimately, effective assessment of the new curriculum may require either establishing the language courses as mandatory for all students or integrating the cognitive and metacognitive awareness prompts into the current mandatory nursing classes.

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