

Developing 21st century skills in language teaching:

A focus on English education in Japan

(言語教育における 21 世紀型スキルの育成—日本の英語教育に焦点をあてて—)

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Abstract

Developing 21st century skills has been considered vital to success in an increasingly globalized world (e.g., Griffin, McGaw, & Care, 2012). One of the important components of the skills is understanding other languages and cultures. By learning other languages, students develop respect and open mind to different cultures, religions, and views on the world. Interacting with people in other languages on the basis of cultural understanding enables students to develop global awareness, discuss issues, and reach solutions in a harmonious way. Therefore, the goal of language education has drastically changed from transmission of knowledge about a target language to development of communicative competence in the language.

In accordance with the drastic shift in language education worldwide, in Japan, for example, the Japanese Ministry of Education, Culture, Sports, Science, and Technology (MEXT) revised the Course of Study Guidelines in 2017 and 2018. There were two notable features in the revision (MEXT, 2018a): improving quantity and quality of “what to learn” (content), and putting more emphasis on “how to learn” (process) and “what to be able to do” (outcome). Regarding the content, the number of target words increased than ever, and grammatical knowledge should be taught for students to use in practical communication, especially for speaking and writing. When it comes to the process and outcome, active learning was promoted to improve students’ ability to think, make decisions, and express themselves, and each school had to set up specific learning attainment targets in the form of ‘CAN-DO lists.’

Few studies, however, have thus far demonstrated how English teachers in Japan can realize the latest guidelines in their classrooms. This dissertation, therefore, explores an effective instruction for developing 21st century skills in students, conducting some

empirical research in the field of English education in Japan. The main research question addressed in this dissertation is as follows:

RQ: How do language teachers develop students' 21st century skills in their classrooms?

In order to explore the research question above, the present research formulated the following four sub-questions (Sub-Qs) and implements a case study in Japan:

Sub-Q1. How can teachers help students learn a large number of English words?

Sub-Q2. How can teachers teach English grammar for productive use?

Sub-Q3. How can teachers implement active learning collaboratively?

Sub-Q4. How can teachers create validated 'CAN-DO lists' in a small school?

In response to the increase of target words, students are expected to develop their vocabulary knowledge on their own with their vocabulary learning strategies (VLS). Numerous studies have suggested that students have difficulty developing effective VLS for themselves and explicit instructions are necessary to help learners efficiently acquire VLS. Since it is unrealistic and even ineffective to teach all VLS, it is helpful to know essential VLS (Sub-Q1). A conventional form-focused grammar instruction often encourages students to memorize technical words (e.g., Subject, Object, and Complement) rather than use grammar in real communication situations. Retaining such knowledge is a cognitive burden for students, making increasing numbers of students reluctant to learn English. Instead, a communication-oriented approach to teach

English grammar should be promoted to cultivate students' communicative competence, especially their productive skills, and to enhance their motivation to learn (Sub-Q2). Numerous attempts have been made to implement project-based learning (PjBL) in English classrooms as one of the representatives of active learning, and have reported that English teachers have difficulty activating interaction among all the participants, teachers and students, in a PjBL practice. Therefore, it is necessary to investigate how teachers can collaborate in PjBL, and how students can engage in interactive learning activities (Sub-Q3). The 'CAN-DO lists' are useful for making easier refinement and improvement of teaching techniques and assessment methods according to the abilities of the students and the realities of each community. Although a lot of studies have introduced the process of developing their own 'CAN-DO lists' in a large school, there is no research investigating how the 'CAN-DO lists' should be created in a small school (Sub-Q4).

This dissertation is composed of the following seven chapters to address the four sub-questions outlined above. Chapter 1 provides an introduction and an overview of 21st century skills, the history of the Course of Study Guidelines from the first guidelines announced in 1947, and the latest guidelines reform in primary and secondary schools. This will be followed by an outline of the purpose and scope of the present research based on a brief review of previous studies. Chapter 2 reviews the extensive literature in four main areas: (a) definition and categorization of VLS, and its effects on vocabulary learning; (b) a communication-oriented approach to teach English grammar, called Meaning-Order Approach to Pedagogical Grammar (Tajino, 1995; MAP Grammar); (c) a holistic picture of PjBL including theoretical background, definition, comparisons with problem-based learning (PBL), and an application of

value-centered team-learning to its implementation (Tajino & Tajino, 2000; Tajino & Smith, 2016); and (d) a process of developing the ‘CAN-DO lists’ at each school from elementary school to university. Based on the review of related literature, the subsequent studies in the dissertation attempt to answer the aforementioned four sub-questions by exploring a way of realizing the Course of Study Guidelines in terms of ‘what to learn’ (Sub-Q1 in Chapter 3 and Sub-Q2 in Chapter 4), ‘how to learn’ (Sub-Q3 in Chapter 5), and ‘what to be able to do’ (Sub-Q4 in Chapter 6).

Chapter 3 aims to identify effective VLS. Although it is assumed that metacognitive VLS are effective (e.g., Macaro, 2006; Wenden, 1998), few studies have empirically investigated this assumption. This chapter, therefore, conducted a study in order to establish a comprehensive taxonomy of metacognitive VLS and explored the relationship between the use of metacognitive VLS and vocabulary knowledge. A vocabulary size test and a VLS questionnaire were administered to 132 Japanese junior high school students. The data were analyzed using exploratory factor analysis and multiple regression analysis. The results showed a total of 20 metacognitive VLS and categorized them into six. Among the six metacognitive VLS, *input seeking* was a positive predictor of test scores at any frequency level, while *spaced learning*, *guessing with confidence*, and *note making* varied in effectiveness depending on word frequency. These results suggested the importance of encouraging students to learn vocabulary outside the classroom, acquire basic affix knowledge, and make vocabulary notebooks.

Chapter 4 shifts the focus on teaching grammar and introduces MAP Grammar instruction, which has received much attention as an effective means of developing competence in English, especially productive skills (e.g., Smithers & Gray, 2020; Watari et al., 2012; Yamada, 2018a, 2018b). One of the unique features of the

instruction is to make full use of students' grammatical knowledge of their L1 (Japanese). This is in accordance with the latest guidelines, which intend to promote the students' awareness of the similarities and differences between English and Japanese (MEXT, 2018a). However, no studies have investigated the effects of MAP Grammar instruction from the perspective of students' Japanese competence. The study in this chapter, therefore, examined the relationship between the effects of MAP Grammar instruction and students' Japanese competence. A total of 42 Japanese EFL learners (29 male and 13 female) participated in the present study. They were all in their first year at university. Analysis of Japanese-English translation writing and Japanese test scores showed that students' number of written words and motivation to learn increased regardless of their Japanese competence. On the other hand, their Japanese competence affected their improvement of subject omission. The results were discussed using comments obtained from the open-ended questionnaire, and a feasible way of achieving collaboration between English and Japanese education was proposed.

Chapter 5 proposes how to implement PjBL in an EFL context. PjBL has demonstrated its ability to improve a range of skills in students (e.g., Bell, 2010; Beckett & Slater, 2005). However, some studies have reported that English teachers have difficulty activating interaction among all the participants, teachers and students, in a PjBL practice (e.g., Airey, 2016; Tigert & Percy, 2017). No studies have empirically investigated how teachers can collaborate in PjBL, and how students can engage in interactive learning activities. Therefore, the study in this chapter aims to demonstrate a PjBL practice led by the notion of value-centered team-learning. A total of 19 teachers collaboratively implemented a year-long PjBL project with 73 high school students in Japan. Quantitative and qualitative questionnaires were used to

collect data from students and teachers. Students' responses on their skill development and involvement in the project were statistically analyzed, and supplemented by the qualitative analysis of their comments. Teachers' comments were inductively categorized into six from the perspective of what they learned in the project. The results showed that value-centered team-learning could contribute to a success in creating a learning environment in which all the participants could learn much from each other through dynamic interaction. Therefore, this study suggested that English teachers should actively participate in PjBL by applying value-centered team-learning.

Chapter 6 introduces the procedure of developing the 'CAN-DO lists' in a small school and gives a suggestion on how to enhance the validity of the lists. The study in this chapter showed how the 'CAN-DO lists' were created and validated in Hokkaido Erimo High School, a small combined junior and senior high school. First, the attainment goal at the point of graduation from Erimo High School was set by the teachers in Erimo Elementary, Junior, and Senior High Schools. Second, using the 'CAN-DO lists' developed by the Society for Testing English Proficiency (EIKEN), multiple-choice questionnaires were created and administered to the teachers and students. With reference to the results, fully validated 'CAN-DO lists' of Erimo High School could be developed. There were three more advantages in this study. First, thanks to the questionnaire, the 'CAN-DO lists' would contribute to the students' motivation to learn English. Second, through this study, a lot of teachers could communicate with each other beyond the difference of schools and subjects. Third, there was a positive washback effect on creating the 'CAN-DO lists' in other schools and subjects. From these findings, a suggestion for future research of making use of and improving 'CAN-DO lists' was discussed.

Chapter 7 concludes the dissertation by synthesizing the aforementioned findings and by discussing tentative answers to the research question. It first reviews the results obtained in the present studies, and then proposes a practical way of curriculum management with good balance of ‘what to learn,’ ‘how to learn,’ and ‘what to be able to do.’ In response to the improvement of teaching contents in quantity and quality, the present research identifies effective metacognitive VLS and MAP grammar instruction for productive use. It also emphasizes the importance of teachers’ and students’ dynamic involvement in classroom interaction and goal setting. Not only English teachers but also other subject teachers and students can enhance the educational effects by collaboratively engaging in interacting in a PjBL practice and creating ‘CAN-DO lists.’ Finally, pedagogical implications for teacher education as well as several limitations and suggestions for future research are stated.