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Design and evaluation of intercultural cooperative project-based learning in the field of inbound tourism in Japan: A tour guide training course with Chinese and Japanese learners



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Abstract

As internationalization in the learning environment is still developing in Japan, there is a need for further practical research in foreign language education which embeds international cooperative learning. The study reported in this paper aimed to explore the effectiveness of Intercultural Cooperative Project-Based Learning (IC-PBL) based on the integration of foreign language education and tourism education, aiming to develop the necessary skills for collaborating with people from diverse cultural and linguistic backgrounds. Working in the context of a Japanese university, we designed IC-PBL to incorporate the acquisition of knowledge of tourism, tour guide conversation training, field investigation of tourist destinations, and presentation of travel itineraries. Learning outcomes were evaluated based on the concept of *Fundamental Competencies for Working Persons* (Ministry of Economy, Trade and Industry, 2017) utilizing both quantitative and qualitative analysis. The study shows that the competencies for *independence*, *ability to reach out to others*, *creativity*, and *ability to cope with stress* were enhanced through the IC-PBL practice. In addition, learners recognized that collaborative learning experiences supported their improvements in *thinking* and *teamwork* within the framework of the Fundamental Competencies for Working Persons. This IC-PBL model shows potential as an effective instructional design to integrate foreign language education and tourism education and promote the ability to work with diverse people towards a common goal.

Keywords: intercultural cooperative learning, project-based learning, tourism education, foreign language education, fundamental competencies for working persons

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Data Availability Statement: All relevant data are within this paper.

Introduction

Against the background of a significant increase in the number of tourists visiting Japan prior to the pandemic, the Japanese government has put forward “The Tourism Vision to Support the Future of Japan” (MILT, 2016), which is an ambitious policy proposal to promote tourism education development through foreign language education. With 60 million tourists expected to visit Japan by 2030, a large proportion of them from China, this means that it is necessary to develop Chinese-speaking staff to work in various roles, such as tourism industry workers, volunteer guides, and professional interpreters. Even in Hokkaido, a northern agricultural region in Japan and the field of this study, the number of tourists exceeded 2.3 million prior to the pandemic, of which 60% were Chinese (Mandarin)-speaking tourists from places of Chinese origin (China, Taiwan, Hong Kong, Singapore, etc.) (Hokkaido Government, 2017). Opportunities for Chinese-speaking guides and customer service representatives in Japan are expected to increase in the future.

An important point to note here is that, contrary to the popular image, interactions within the tourism sector are significantly more varied than the provision of tourist information and attending to customer needs related to leisure activities. What has become clear over the last 10 years in particular is the need to effectively exchange important information and negotiate meaning under emergency conditions. During natural disasters and unexpected events such as the Great East Japan Earthquake in 2013, the floods in Western Japan in 2018, and the Hokkaido Eastern Iburi Earthquake in 2018, it became necessary for tourism workers and emergency services staff to interact with people who could not communicate in Japanese and provide them with information and instructions in English or Chinese. This has brought into awareness the crucial need to anticipate specific situations in which such communication would be required, and to cultivate the ability to collect, negotiate, and coordinate information using all available language resources. This also foregrounds the need for interculturally sensitive communication.

Within the broader educational context in Japan, there has been increased awareness of the importance of cultivating individuals that can communicate across cultures, not only due to the internationalization of business activities but also due to the increasingly diverse demographics within Japan (MEXT, 2005). In the context of multiculturalism and internationalization, intercultural competence development is important for effective instructional design. Byram’s five elements of intercultural competence (1997, p. 34) have been applied as models for various intercultural education: (1) knowledge (of self and others; of interaction: individual and societal), (2) skills (interpret and relate), (3) skills (discover and/or interact), (4) attitudes (relativizing self, valuing others), and (5) education (political education, critical cultural awareness). Of these elements, it is difficult to develop (3) and (5)—prerequisites for collaborative activities with multicultural and multilingual counterparts, because, in Japan, social life and educational activities are mainly conducted in Japanese. Therefore, it is necessary to design more opportunities for cross-cultural understanding, language operations, and interactions between learners from different cultural and linguistic backgrounds.

This paper reports on exploratory research to design an intercultural cooperative project/problem-based learning (IC-PBL) model based on the theme of tourism, create pedagogical links with foreign language education, and study the indicators for evaluation. The project involved cooperation between learners of Japanese and Chinese nationality studying at the same institution. There are insufficient opportunities in Japan for Japanese students and Chinese international students to take advantage of the fact that they are native speakers of each other’s target languages and to build relationships through interaction in their respective languages. Therefore, in this research, we addressed the problems faced by the tourism industry in the region where the learners reside. We

created an instructional design based on knowledge acquisition through group learning, expanding it further to cover learner-centered research, planning, and results from presentation. We conducted this study because we believe that an integrated approach to tourism education and foreign language education has a high potential to promote intercultural learning. We also note increasing interest in the intersections of tourism and interculturality (e.g., Sharma & Gao, 2021), and share the conviction that tourism-focused learning meshes well with language learning goals due to the opportunities for (intercultural) interaction, meaning creation, and engagement in society.

In the next sections, we briefly review the literature on Foreign Language Acquisition (FLA) and PBL that is relevant to our study, then we introduce the Fundamental Competencies for Working Persons framework that guided our pedagogical design and investigation.

Literature Review

Empirical studies on FLA and PBL

Several studies have begun to explore the potential for cross-cultural cooperative learning in Japan (e.g., Oshitani, 2006; Sakamoto *et al.*, 2017), and there has also been an increase in the number of papers exploring teaching practices involving cross-cultural communication activities in various subjects (e.g., Sato *et al.*, 2011; Miyamoto, 2015; Sugie & Mitsugi, 2015; Takahashi, 2016). Although opportunities for cross-cultural collaboration and interaction are not as easy to find as in much of the research carried out in Europe, they are increasing in business contexts in particular.

Various previous studies designed as a combination of FLA and PBL have focused on intercultural cooperative learning. The following are some examples of the methods adopted by similar studies that share this study's context: co-learning courses with international and Japanese students (Oka, 2016); a questionnaire survey based on "The Intercultural Development Inventory" (Yamamoto, 2014) and "intercultural literacy" (Yamagishi, 1997) through intercultural co-learning classes (Iwasaki & Ikeda, 2015); and problem-based learning activities using online collaborative learning for a mixed group of Japanese and Korean students in a multicultural exchange course (Jung *et al.*, 2016). They found that intercultural cooperative learning had positive effects on cross-cultural understanding, communication attitude, adjustability and task accomplishment, relationship building, and the skills to use multimedia tools.

As for integrating English education and tourism education within the framework of PBL, Simpson (2011) used PBL in the context of EFL learning and tourism education for English-major students in the English for Tourism course at a Thai university. This study examined how PBL enhanced English language proficiency, learning skills, and self-confidence. However, the emphasis was on improving EFL learners' English pedagogy, rather than on cross-cultural education. Mitsugi *et al.* (2017) conducted fieldwork activities in a tourism destination as part of teaching tourism English. The study showed that individual learners evaluated the practice in terms of the fact that it provided them with various insights, such as an awareness of English communication gaps specific to tourist destinations, the importance of English communication, and the need to improve their English skills.

These previous studies have examined the outcomes and educational effects of intercultural exchange and cooperative learning, such as the improvement of the four skills of language communication and effects related to the affective aspects of foreign language learning (motivation, attitude, and anxiety). In the tourism education context, studies have been conducted to improve hospitality, career development, and business effectiveness and efficiency in the tourism industry using English (e.g., Bobanovic & Jasmina, 2011; Janta *et al.*, 2012; Ruhanen *et al.*, 2013; Nahid *et*

al., 2017).

Conversely, we have expanded the possibilities of instructional design within the framework of IC-PBL, integrating Chinese/Japanese language education and tourism education. We have not only fostered knowledge and skills but increased opportunities for authentic activity through tasks that involved finding and solving problems related to the inbound tourism industry and understanding the realities of the field through the exchange of intercultural perspectives (e.g., consumption trends of Chinese inbound tourists and translation of local product information) (e.g., Sugie 2018, 2019a, 2019b, 2020; Sugie & Fujisaki, 2021).

Fundamental Competencies for Working Persons: A framework for learning design

In attempting to implement IC-PBL in Japan, it is essential to consider a framework called the “Fundamental Competencies for Working Persons.” This consists of three competencies and 12 elements, described by the Ministry of Economy, Trade, and Industry (METI) as the “Basic Skills Necessary for Working with Diverse People at the Workplace and in the Community.” Both teamwork and action include elements for collaboration, networking behavior, connecting with diverse people, partnering, dialogue skills with which to overcome barriers and utilize diversity, relationship capital, relationship-building skills, the ability to jump into a cross-cultural group (accepting chaos, the unknown, and different cultures), and gain trust (involving others) (METI, 2018). The competencies and elements resonate with several aspects of Byram’s model (1997), particularly *Skills (discover and/or interact)* and *Attitudes (relativizing self, valuing others)*. Therefore, in this study, we assessed the meaningfulness of learners’ achievements and experiences using these competencies.

(3 competencies and 12 elements)

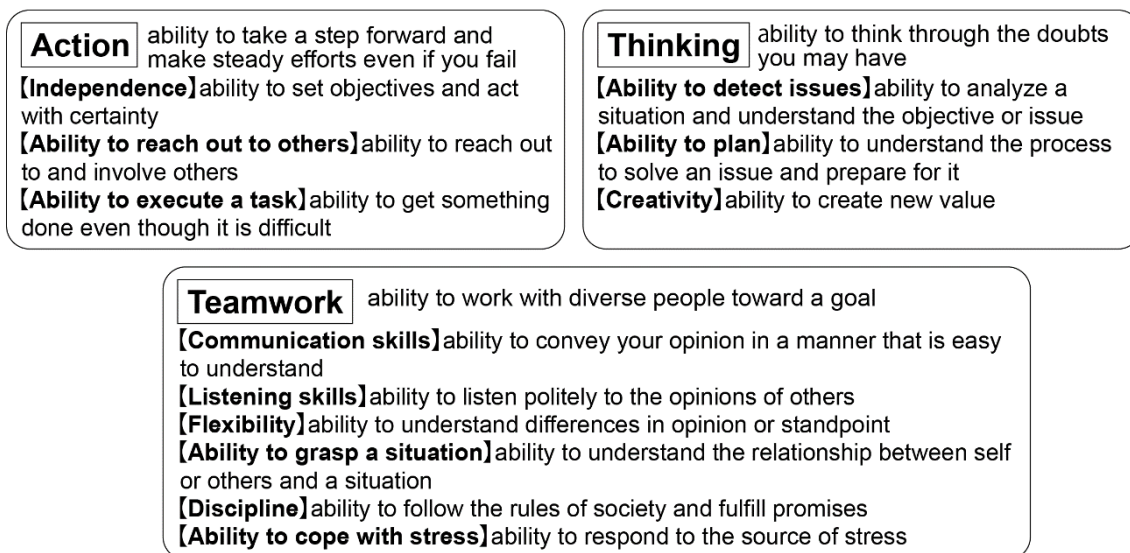


Figure 1 Fundamental competencies for working persons (METI, 2017)

Note. All the graphical resources were translated by the first author.

According to the Council on Promotion of Human Resource for Globalization Development (2010) established under an industrial-academic partnership, the concept of global human resources can comprise the following factors: Factor I—linguistic and communication skills; Factor II—self-direction and positivity, spirit for a challenge, cooperativeness, and flexibility, a sense of responsibility and purpose; and Factor III—an understanding of other cultures and a sense of identity

as a Japanese citizen. Considering these factors, it is difficult to measure the fundamental competencies using a single indicator. However, these competencies can be based primarily on Factor I, for example: (1) communication skills for traveling abroad, (2) communication skills for daily interactions abroad, (3) communication skills for business discussions and paperwork, (4) linguistic skills for bilateral negotiations, and (5) linguistic skills for multilateral negotiations.

The term *cross-cultural differences* refers to the differences in values, thinking, mannerisms, and communication styles that exist in a global environment, against the backdrop of diverse cultures and history. Learners of Chinese account comprise the second-largest group of foreign language learners after English learners in Japan, and communication needs for the Chinese language are growing rapidly. Rather than using knowledge acquisition, technical skills, and training as evaluation criteria, an educational perspective that focuses on the above competencies is necessary when designing lessons, practice, and evaluations for language learning. Project/problem-based learning (PBL) is suitable for this purpose. The Ministry of Education, Culture, Sports, Science, and Technology has recommended PBL as an essential part of university reforms for the qualitative transformation of education. The important function of PBL as a method of experience-based learning is that it makes learners face the challenges of the society they live in, act based on how they perceive these issues, and collaborate with other members of society to solve them.

The purpose of this study was to explore the effectiveness of the IC-PBL model based on the integration of foreign language education and tourism education and to develop the skills necessary for collaborations with people from various cultural and linguistic backgrounds. For that reason, we used the competencies and elements mentioned in the Fundamental Competencies for Working Persons as the evaluation indicators and correlated them with the learners' perspectives to explore the outcomes, effectiveness, and challenges of this IC-PBL model. The originality of this study lies in the fact that the IC-PBL integrates foreign language education and tourism education in the context of mutual learning among Chinese and Japanese students. Moreover, this study implements authentic activities and assessments to evaluate experience-based IC-PBL, rather than emphasizing a traditional evaluation that prioritized knowledge and skills practice in the foreign language classroom. In this model, the learners surveyed a local specialty shop with a large number of inbound visitors and created a Chinese introduction for famous products, which was then shared with business operators.

We established the two research questions (RQ) below to frame our investigation:

RQ1: Which aspect of the Fundamental Competencies for Working Persons do learners recognize as being affected by IC-PBL?

RQ2: What are the foreign language learning experiences and outcomes that form the basis for the effects that learners recognize?

Methods

Course outline

The context for this study was a guide-interpreter course at a university in Hokkaido, Japan. The course offered an intercultural collaborative learning environment with Japanese and Chinese students from different majors at the same university. The university curriculum provides 15 weeks of 90-minute classes held once a week per semester. In this course, we had two classes in a row, which means that we had 30 classes per semester. The purpose of the course was to get Japanese students to use Chinese as a second language at the level of a second-year student and for Chinese

students to use the learning material for N2 level of the Japanese-Language Proficiency Test to learn common words and conversational phrases used in Hokkaido tourism and customer service. Through collaborative learning, the learners were expected to develop the proficiency to act as guides by describing the attractions of Hokkaido. This course required prior computer literacy to create documents and presentations. Classes were held in classrooms where each student had access to a PC and the Internet.

Participants

There were 30 learners (five Japanese, 25 Chinese) enrolled in the course during the second semester of the academic year 2018–19. Of the international students, one was a regular student and the other 24 were one-year exchange students. The five Japanese students studied the Chinese language and culture (with no experience of studying overseas). The Chinese students included five students of management, six studying Japanese language and culture, and 14 studying Chinese language and culture. The Chinese students had received between one and three years of Japanese language education, and their conversation skills varied accordingly. As the level of the Chinese students' Japanese conversation skills was high, conversations between students were mostly conducted in Japanese.

Course Design

The design of IC-PBL (Table 1) comprises four components: (1) delivering a presentation to introduce the learners' hometown or talk about their summer vacation; (2) learning Chinese phrases and sentences used in tourism and customer services and using them in conversation; (3) writing an essay on local specialty products after researching stores selling these products and presenting recommendations for inbound tourists; and (4) planning an area-specific travel itinerary and preparing a mock presentation as a tourist guide. The basic rule was that presentations should be made in Chinese by Japanese learners and in Japanese by Chinese learners. However, everyone spoke in Japanese for the third component, as the presentations were made for actual business operators, who also gave feedback to the presenters.

Table 1 IC-PBL Design

Component	Learning Style	Objective and Content
1. Introduce your hometown / Talk about your summer vacation	Individual	<ul style="list-style-type: none"> • Checking the level of foreign language skills and computer literacy • Exchange students from the second term will make a presentation about their hometown • Continuing students from the first term will make a presentation about their summer vacation
2. Learn Chinese phrases and sentences for tourism and customer services; practice conversation	Lecture/ Group	<ul style="list-style-type: none"> • Learning common phrases and conversational expressions used in tourism and customer services (4 skills) • Situation-specific practical conversation and interpretation practice • Teaching material used: <i>PERAPERA Hokkaido</i> in Chinese
3. Research stores selling local specialty products, write an essay	Group/ Individual	<ul style="list-style-type: none"> • Visiting stores selling local specialty products: investigative learning about product information and how to respond to inbound tourists

introducing the products, and give a presentation on recommendations for inbound tourists		<ul style="list-style-type: none"> • Writing an essay introducing the products to Chinese inbound tourists (in Japanese and Chinese) • Making a presentation about recommendations for Chinese inbound tourists (everyone to use Japanese as this presentation is for business operators)
4. Plan and present an area-specific travel itinerary	Individual/ Group	<ul style="list-style-type: none"> • Supporting mutual learning by utilizing each other's knowledge, experience, skills, language ability, etc. • Understanding what the tourists would like to see, creating value, and promoting local attractions • Selecting the tourist sites of Hokkaido and planning and presenting a travel itinerary

Component (1) involved a presentation about one's hometown for learners who started the class in the second semester, whereas the students continuing from the first semester talked about their summer vacation. The purpose of this activity was to provide Japanese and Chinese students with a practical understanding of the realities of each other's countries and regions, which they had only vaguely imagined, through a cross-cultural and comparative perspective. The presenters of each group gave a self-introduction using appropriate expressions they had learned during the initial orientation, after which they made an oral presentation introducing their respective hometowns using PowerPoint slides they had prepared on their own. This exercise familiarized them with the idea of self-introduction every time they met a new person, helped them get to know their classmates, and provided an opportunity to build relationships. Additionally, it helped assess foreign language skills and level of computer literacy. Students from the previous semester talked about their summer vacation, as they had already presented on their hometown. This activity not only helped learners share their university life experiences, such as traveling in Hokkaido and other parts of Japan, club activities, part-time work, and going back home, but also provided information to new exchange students. Moreover, one international student who experienced the Eastern Hokkaido Iburi Earthquake in September spoke about how everyday life should not be taken for granted and how she had lived with other international students through the days of blackouts and aftershocks.

Component (2) was about learning and practicing common phrases required for working as a Chinese tourist guide in Hokkaido. The class read commonly used sentences aloud, checked their meanings, and practiced interpretation, after which they practiced scenario-based conversation in groups by acting as guides and tourists. This activity aimed to focus on the communicative situation of a tourism service as a context for language use, encourage active discussions on familiar topics that could be easily recognized as cultural differences, and deepen mutual understanding. For example, Chinese students learned many examples of Japanese hospitality, such as attentiveness to others and behavioral habits of sensing others' needs, through examples of actual hospitality situations and explanations of service manners. In addition, Chinese students noticed that many expressions are not used or do not even exist in hospitality situations in their home country. As an example, the expression "free refills of rice and miso soup even on the set meal menu" was challenging to come up with an appropriate expression because in China, the only meal format that allows refills is the buffet, although hot water and tea can be refilled free of charge. After listening to the Japanese students' explanations and understanding the Japanese spirit of hospitality, both students jointly developed Japanese and Chinese translations. At the same time, the Japanese students learned that inbound customers from Chinese-speaking regions do not drink cold drinks even in summer. In Japan, it is common for restaurants to serve cold water or tea with ice in the hot summer and hot tea in winter. However, in the regions, there is a custom of eating and drinking that avoids cold drinks even in summer to prevent the body from getting cold. In recent years, tourist spots that have seen an increase in the number of inbound Chinese tourists have installed hot water

kettles in their lobbies and offered free hot water. The Japanese students had never heard of this before, or even seen it without understanding its reasons, but they learned about the inbound response and cultural reasons for this.

您觉得肚子饿吗？

お腹がすいていませんか？

有不能吃的(东西)吗？ (English translation for readers)

有什么忌口的(东西)吗？

有什么吃不惯的(东西)吗？

食べられないものはありますか？

您有没有食物过敏？

アレルギーはありますか？

我不能吃虾。

エビが食べられません。

晚餐是自助餐。

夕食はバイキングです。

午餐是日式套餐/定食

昼食は和定食です。

您能吃生鱼片吗？

お刺身は食べられますか？

米饭、味噌汤可以免费续。

ご飯と味噌汁はお代わり自由です。

• Are you hungry?

• Is there anything you can't eat?

• Do you have any allergies?

• I can't eat shrimp.

• Is there a buffet dinner?

• Dinner is a buffet.

• Lunch is a Japanese set meal.

• Do you eat raw fish?

• Rice and miso soup are free to refill.

■第二单元 第16课 実践会話指示カード

- | | |
|-----------------------------|---|
| 1. 空腹かどうかたずねるとき | 1. When you ask someone if they are hungry. |
| 2. (1の答えとして) 空腹なとき | 2. When you are hungry |
| 3. (1の答えとして) 空腹ではないとき | 3. When you are not hungry |
| 4. 食べられないものがあるか確認するとき | 4. When you ask if there is something you can't eat |
| 5. (4の答えとして) 食べられないものがあるとき | 5. When there is something you can't eat |
| 6. 食物アレルギーがあるか確認するとき | 6. When asking if there are any food allergies |
| 7. 昼食にラーメンを提案するとき | 7. When suggesting ramen for lunch |
| 8. (7の答えとして) 提案を受け入れないとき | 8. When accepting a suggestion |
| 9. (7の答えとして) 提案が気に入らないとき | 9. When you don't like a suggestion |
| 10. 夕食の食事形式がバイキングであるとき | 10. When you explain that dinner is a buffet |
| 11. 昼食の食事形式が和食のセットメニューであるとき | 11. When explaining that lunch will be Japanese food |
| | 12. When you ask if they can eat sashimi |
| | 13. When explaining that rice and miso soup can be refilled |

Figure 2 Worksheet on commonly-used sentences by guides and conversation practice

Component (3) entailed investigative learning, wherein the students visited stores selling local specialty products, learned about the products by researching or asking about them, and then wrote an essay (in both languages) to introduce the products. Based on their research, the learners presented in Japanese to business operators, explaining how they should promote their stores and products to tourists from Chinese-speaking countries, what recommendations they should make, and how they should handle possible problems. There was a discussion after the presentations, during which business operators also provided feedback.

This field survey aimed to understand the field of tourism, discover stories about local actors and specialties, and recognize and share the value of tourism resources based on the differences in values between Japan and China. Through the survey of stores, students from both countries had the opportunity to learn from each other based on cultural differences in terms of trends in Japan's inbound industry and determining the value of local specialties. For example, Chinese students were surprised at the wide variety of local specialty products, mainly processed products manufactured from a single ingredient or material. Although there are regional specialties that impact China, they have a single type and use. For instance, one of the most popular products in the store was "red bean tea" and "red bean hot eye mask," and the Chinese students were impressed with the idea of processing beans not only into food but also into drinks and health goods. The Japanese students learned how the best-selling products and preferences differ depending on the country or region of the inbound tourists. At the same time, they learned about the specific preferences of tourists, especially those from Chinese-speaking regions. They listened to Chinese students' impressions of the products, their willingness to buy them, reasons for wanting to buy them and reasons for not

wanting to buy them. By introducing similar products in China, they gained a concrete understanding of the differences between Japanese and Chinese souvenirs based on actual examples and episodes.



Figure 3 *Investigative learning at stores*

Note. The photo on the left shows a student interviewing a store manager about the origin and features of a product, and the photo on the right shows a student interviewing a salesperson about the features of a product that sells well and about customers. All photos were taken by the first author.

Component (4) involved learning about area-specific tourist spots and events in Hokkaido and translating the information into Chinese. The teacher used a travel magazine as supplementary material and explained the main points. The learners summarized and translated the information into groups. Also, each group selected a tourist spot and planned a travel itinerary starting from Sapporo. The task was coordinated from start to end by the learners themselves, including the tourist spot selection, planning of the itinerary (transport, lodging, and highlights), and allocation of work. Each group created an itinerary sheet in Excel using the format. Finally, a mock presentation of the planned itinerary as a tour guide was delivered.

Data Analysis

A questionnaire survey was conducted to evaluate the class at the beginning and end of the semester. The survey comprised questions that used a 5-point scale to assess the Fundamental Competencies for Working Persons and asked respondents to specify the reasons for their choice (Tables 2 and 3). Additionally, to determine their language learning progress, the questionnaire had a column in which learners could describe their learning objectives at the beginning of the semester. At the end of the semester, they answered their perceptions on the learning activities and course content that helped them achieve their objectives. The questionnaire was created using Google Forms, and the learners used classroom computers to complete it. The results of the evaluation were aggregated to understand the overall trend, and a paired t-test was performed to compare the results before and after the semester. Qualitative data analysis software (MAXQDA) was used to code, extract categories, and create concept maps for the reasons the learners gave for their choices. During the analysis, Chinese text was interpreted by translating it into Japanese at the time of coding by the first author.

Table 2 *Pre- and post-questionnaire on fundamental competencies for working persons*

No.	Questions and Contents
1	<i>Action:</i> ability to take a step forward and make steady efforts even if you fail
1-1	Do you feel that you have become independent (ability to set objectives and act with certainty) or improved from before?

Do not agree 1 2 3 4 5 Agree ※Use the same answer format for questions below	
1-2	Have you developed the ability to reach out to others (ability to reach out to and involve others) or improved from before?
1-3	Have you developed the ability to execute a task (ability to get something done even though it is difficult) or improved from before?
2	Thinking: ability to think through the doubts you may have
2-1	Have you developed the ability to detect issues (ability to analyze a situation and understand the objective or issue) or improved from before?
2-2	Have you developed the ability to plan (ability to understand the process to solve an issue and prepare for it) or improved from before?
2-3	Have you developed creativity (ability to create new value) or improved from before?
3	Teamwork: ability to work with diverse people toward a goal
3-1	Have you developed communication skills (ability to convey your opinion in a manner that is easy to understand) or improved from before?
3-2	Have you developed listening skills (ability to listen politely to the opinions of others) or improved from before?
3-3	Have you developed flexibility (ability to understand differences in opinion or standpoint) or improved from before?
3-4	Have you developed the ability to grasp a situation (ability to understand the relationship between self or others and a situation) or improved from before?
3-5	Have you developed discipline (ability to follow the rules of society and fulfill promises) or improved from before?
3-6	Have you developed the ability to cope with stress (ability to respond to the source of stress) or improved from before?
4-1	Which learning activity did you find most helpful? (Select from options below) <ul style="list-style-type: none"> ○ Studying the textbook <i>PERAPERA Hokkaido</i> (reading aloud/interpretation practice/short test) (Individual learning) ○ Conversation practice using example sentences for different scenarios from the textbook (Group learning) ○ Kurashistore Hokkaido research (product research, essay introducing the products, presentation) (Group learning) ○ Planning a winter tour in Hokkaido (researching tourist information, itinerary planning, presentation) (Group learning) ○ Others (Please specify)
4-2	Which skill, ability, or knowledge did you want to improve? What aspects of the learning activity chosen above helped you the most in improving your desired skill, ability, or knowledge? (open-ended question)

Results

Recognition of Effectiveness Relating to “Fundamental Competencies for Working Persons”

Concerning RQ1 (“Which aspect of the Fundamental Competencies for Working Persons do learners recognize as being affected by IC-PBL?”), learners submitted responses before and after the course for an indirect assessment. A paired t-test was conducted to investigate whether there were any significant changes before and after learning. Table 3 shows the mean (*M*), standard deviation (*SD*),

and Cronbach's reliability coefficient (α) before and after learning.

Table 3 Item statistics (Total)

	<i>M</i>	<i>SD</i>	α
Before	4.125	7.347	.922
After	4.350	7.617	.955

The overall mean increased by 0.225, and a paired t-test was performed to confirm whether this was a significant change. The effect size r was also calculated. The results showed a statistically significant difference at the 5% level, and the effect size was moderate ($t = -2.645$, $p = .013$, $r = .44$). From these results, it can be confirmed that the value of the competencies and elements of the Fundamental Competencies for Working Persons rose because of PBL.

Table 4 Results of Sample Test

	Sample Difference				<i>t</i>	<i>df</i>	Significant probability (both sides)	
	<i>M</i>	<i>SD</i>	Standard Error of the mean	95% Confidence Interval for Difference				
				Lower limit				Upper limit
Difference between before and after	-2.700	5.590	1.021	-4.787	-.613	-2.645	29	.013

For which competencies and elements was IC-PBL most effective? To determine individual changes, t-tests and effect sizes were calculated for each element. The results are: Under *action* competency, *independence* ($t = -2.192$, $p = .037$, $r = .38$), and *ability to reach out to others* ($t = -2.065$, $p = .048$, $r = .36$) showed significant differences, and the effect size was average. *The ability to execute a task* ($t = -1.306$, $p = .202$, $r = .24$) did not show significant differences, and the effect size was small. Under *thinking* competency, *creativity* ($t = -2.626$, $p = .014$, $r = .44$) showed significant differences, and the effect size was average. *The ability to detect issues* ($t = -2.048$, $p = .050$, $r = .36$) and *planning* ($t = -1.424$, $p = .165$, $r = .26$) did not show significant differences, and the effect size was small. Under *teamwork* competency, the *ability to cope with stress* ($t = -2.340$, $p = .026$, $r = .40$) showed significant differences, and the effect size was average. *Communication skills* ($t = -.465$, $p = .645$, $r = .09$), *listening skills* ($t = -.528$, $p = .601$, $r = .10$), *flexibility* ($t = -.701$, $p = .489$, $r = .13$), *ability to grasp a situation* ($t = -1.533$, $p = .136$, $r = .27$), and *discipline* ($t = -1.439$, $p = .161$, $r = .26$) did not show significant differences, and the effect size was small or almost zero.

From these results, it can be confirmed that the values of *independence*, *ability to reach out to others*, *creativity*, and *ability to cope with stress* rose due to PBL. However, the same cannot be said for the other elements. In the next section, we present the results of the qualitative analysis of which experiences and outcomes specifically helped arrive at the results above.

Learning Experiences and Achievement Recognition Supporting the Improvement of the "Fundamental Competencies for Working Persons"

The results of the analysis for RQ2 ("What are the foreign language learning experiences and

outcomes that form the basis for the effects that the learners recognize?”) are shown in Figure 4. This concept map is a diagram to visualize the relationship between codes or between codes and emerged concepts after coding based on the original text described by the learner. The number of codes described by the learner is shown in a circle. The concepts that emerged from those codes are shown in bold. Concepts and their components are marked in different colors. The relationship between the codes is connected by lines. The larger the number of codes, the bigger the number and the thicker the line. Common concepts that emerged from different concepts are indicated by pink circles.

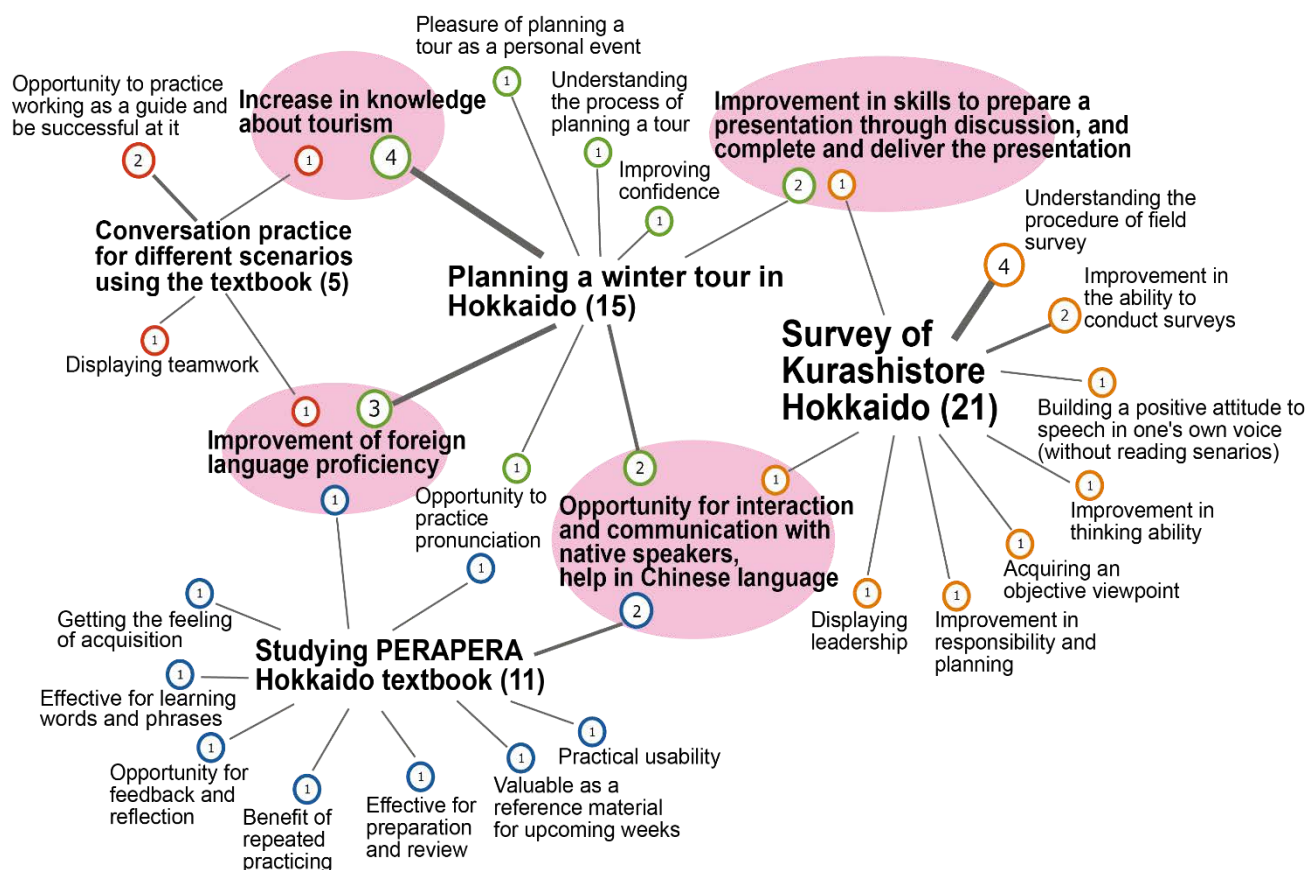


Figure 4 Concept map of recognition of learning experience and outcomes

Learning activities comprised *studying the PERAPERA Hokkaido textbook* (hereinafter *PERAPERA*), *conversation practice for different scenarios using the textbook* (hereinafter *Scenario-based conversation practice*), *Survey of Kurashistore Hokkaido* (hereinafter *Kurashistore*), and *planning a winter tour in Hokkaido* (hereinafter *Tour planning*). The learning experience and outcomes that were recognized, along with their reasons, were coded, and common concepts were consolidated. Numbers in parentheses and circles indicate the number of applicable references.

PERAPERA and *scenario-based conversation practices* were conducted together as one activity. However, the former is also considered valuable as an individual learning resource. The values attributed to *PERAPERA* were *effective for learning words and phrases*, *effective for preparation and review*, *valuable as reference material for upcoming weeks*, and had *practical usability*. Moreover, the learners recognized an increase in output because of conversation practices in the tourism context. Therefore, values such as an *opportunity to practice pronunciation*, *the benefit of repeated practicing*, *increase in knowledge about tourism*, and *opportunity to practice working as a guide and be successful at it* were also recognized. Since both groups comprised native speakers of the target

learning language, values like *displaying teamwork, opportunity for feedback and reflection, and opportunity for interaction and communication with native speakers/help in Chinese* were recognized.

Rather than focusing on the amount of knowledge, the *Kurashistore* learning activity focused on the cooperative learning approach, the ability to understand the task independently, and self-regulation. For that reason, besides the intended outcomes related to the learning approach, such as *understanding the procedure of field survey and improvement in the ability to conduct surveys*, the learners could also achieve an *improvement in thinking ability, and build a positive attitude to speech in one's own words (without reading scenarios)*. Other outcomes, which would otherwise have been difficult to achieve through individual studies, such as *acquiring an objective viewpoint, improvement in responsibility, planning and playing the leader* were also achieved.

Tour planning was an activity that integrated knowledge about tourism acquired during the learning process, foreign language use, and collaboration with group members. The learning outcomes for each element were recognized. These included intended outcomes such as *an increase in knowledge about tourism, understanding the process of planning a tour*, and outcomes on the emotional level, such as the *pleasure of planning a tour as a personal event and improving confidence*.

An increase in knowledge about tourism was a common outcome of *scenario-based conversation practice* and *tour planning*. *Improvement in working knowledge of a foreign language* was a common outcome of *PERAPER*, *scenario-based conversation practice*, and *tour planning*. *Opportunity for interaction and communication with native speakers/help with the Chinese language* was a common outcome of *PERAPER*, *Kurashistore*, and *tour planning*. *Improvement in skills to prepare a presentation through discussion and complete and deliver the presentation* was a common outcome of *Kurashistore* and *tour planning*. From these results, it can be concluded that the learners recognized outcomes related to knowledge about tourism, working knowledge of a foreign language, communication with native speakers, and presentation skills through repeated collaboration with other learners in each activity.

Discussion

Based on the analysis in the previous section, it can be said that the experience of cross-cultural collaboration, which forms the basis of the Fundamental Competencies for Working Persons, is necessary for recognizing a quality learning experience and related outcomes. The aspect of independence, which showed significant differences in the quantitative analysis, is reflected in outcomes such as the *opportunity to practice working as a guide (for family and friends visiting Japan from China) and be successful at it, and Willingness to talk using one's own words without reading from a script. The ability to reach out to others* is reflected in *displaying leadership, improvement in skills required to prepare a presentation through discussion and completing and delivering the presentation, and opportunity for interaction and communication with native speakers/help with the Chinese language*. No specific association with any outcome was found for *creativity* or *ability to cope with stress*. Out of the other competencies and elements that did not exhibit significant differences in quantitative analysis, *teamwork* can be associated with outcomes like *displaying leadership* and *acquiring an objective viewpoint*, while *thinking* can be associated with outcomes such as *improvement in responsibility and planning, improvement in thinking ability, improvement in the ability to conduct surveys, understanding the procedure of field survey, and understanding the process of planning a tour*. This suggests that the experience of cross-cultural collaboration, which forms the basis of the Fundamental Competencies for Working Persons, has the potential to guide learning outcomes.

Common outcomes were reported for multiple learning activities. It is important to achieve the intended objectives using instructional methods and strategies for a single learning objective, but this is not an easy goal to achieve. However, when various learning activities are combined, interactions develop between learners. Moreover, new situations, learning experiences, and values are co-created in the process of striving to achieve the tasks. From the standpoint of social constructivism, self-reflection and feedback from others occur naturally in the learners' context (Swain, 2006; Vygotsky, 1978). This makes the learning process highly relevant and meaningful to the individual. This can be interpreted as an effective learning experience. When creating the instructional design, it is better to provide space for learners to freely enhance the potential for creative learning than to try to manage everything via the Plan-Do-Check-Act process from a teacher's perspective.

As pointed out in the previous studies, although traditional foreign language education in Japan partially includes learning activities with elements of cross-cultural understanding, its primary purpose has been to acquire the four skills of linguistic communication and the improvement of language usage skills. However, with the development of globalization, openness to diverse values and perspectives is becoming more critical, and the educational principles and contents of foreign language education in Japan are being modified and restructured (MEXT, 2017a, 2017b). In addition to the acquisition of a practical foreign language, emphasis is being placed on foreign language education aimed at recognizing "cultural diversity," that is, an attitude of acting cooperatively based on diverse viewpoints and thoughts (Risager, 2007). This means that more attention is being paid to activities and teaching methods which help learners engage with various concepts, knowledge, and ways of communication while cooperating and acting with people from diverse linguistic and cultural backgrounds using materials in their environment. In addition, in line with Byram's (2008) notion of "intercultural citizenship", learning activities that strengthen the relationship between the learner and society are indispensable, not by studying a single subject, but by discovering issues in authentic contexts using the real world as a field and examining solutions to questions that have no apparent answers (see also Byram *et al.*, 2017).

The IC-PBL model presented in this paper shows potential as an instructional design approach for intercultural understanding in language education, as it supports the development of learners' abilities to work towards a common goal with individuals from a different linguistic and cultural background, whilst using foreign language abilities. Importantly, it integrates tourism education and foreign language learning in a context in which there is increasing demand for foreign language speakers to be able to not only communicate sensitively across cultural boundaries but also engage with and support the community. Yashima (2004) pointed out in her model of the relationship between intercultural contact and intercultural competence that the accumulation of individual intercultural experiences supports new intercultural practices. In this IC-PBL design, the experiences of intercultural exchange are naturally repeated. By using a socio-cultural topic such as tourism services, it is easy to compare the viewpoint of Japanese and Chinese learners. Cooperative learning with a mutual target language partner can simultaneously generate foreign language communication, cultural awareness of diversity, and cross-cultural interaction. Therefore, the IC-PBL model contributes as an instructional design for the implementation of educational activities aimed at developing intercultural competence.

In Japan's inbound industry, the market priority has been low labor costs. This has created a market for guide interpreters, such as foreign students or native speakers without guiding qualifications or couriers from their home countries. The irony is that Japanese people who have acquired skills and qualifications in tourism knowledge and foreign languages have fewer opportunities to be employed in the tourism industry. Since January 2018, it has become possible to work as a guide interpreter

without a license. However, because of the COVID-19 pandemic, the number of foreign tourists visiting Japan has decreased significantly since 2020. New forms of travel have also emerged during and after COVID-19. As new forms of travel and markets grow, such as online tourism, virtual tourism, and the development of tourism content with live interaction, the need for human resources with cross-cultural understanding and multilingual communication skills can be expected to expand.

Conclusions and Future Challenges

In this study, an IC-PBL model was designed to explore the skills that are needed in international cooperative learning between people from different cultural backgrounds. We focused on the learners' indirect assessment of improvement in the Fundamental Competencies for Working Persons, and the association between learning experience and achievement of learning outcomes, which form the basis of the indirect assessment. The results of the analysis revealed that the elements of Fundamental Competencies for Working Persons that showed improvement through IC-PBL were *independence*, *ability to reach out to others*, *creativity*, and *ability to cope with stress*. Qualitative results in other elements, such as *thinking* and *teamwork*, were also noticed through the experience of collaborative learning.

The limitations of this study can be summarized as follows. First, it was restricted to indirect assessment and data collection, and performance evaluation was mainly based on the teacher's observation. Second, the comments, learning experiences, and outcomes described by the learners included many abstract expressions, and, for some of them, it was difficult to specify the elements of Fundamental Competencies for Working Persons with which they could be associated. We need to clarify the specific meanings and recognition of value through additional means, such as interviews.

The IC-PBL model, where the actual field and community of work are included in the design, and the interactions between learners both develop in various ways. It would be worthwhile looking at the potential of actor-network theory, which has been attracting attention in recent years, for more in-depth research. It is necessary to accumulate knowledge based on specific practices to identify which actors, apart from the important elements (the instructor, material, environment, task, and learners), are functioning, creating a nodal point, building a network-creating agency, and being recognized in the process of learning activities. While the IC-PBL created for this study used the Fundamental Competencies for Working Persons, it would be beneficial to conduct a more comprehensive evaluation from different standpoints by combining multiple indicators, such as peer review and feedback and evaluation by people working in the industry using rubrics. For example, it is necessary to test the feasibility of a tour planned by learners and evaluate the corresponding tour experience. We also need to explore the possibility of connecting the learning outcome with actual tourism operations, such as planning a monitor tour and comparing it to existing tours, whose quality standards are expected to be met.

Since 2020, with the COVID-19 pandemic, the utilization of ICT (Information and Communication Technology) in education and online education have been actively introduced in instructional design. These developments suggest that a new era of instructional design and assessment may be beginning. We would like to continue exploring the possibilities of instructional design that fosters the ability to find and solve problems in real life and develops intercultural competence through immediate interaction in an authentic communication context with high relevance to learners, through collaborative learning with members from multilingual and multicultural backgrounds.

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