Miyazaki International College Compilation of Active Learning Teaching Strategies vol. 2

(School of International Liberal Arts・School of Education)

【 Content 】

The Compilation of Active Learning Teaching Strategies (Vol. 2, 2020) describes the following:

Part 1. School of International Liberal Arts
　　Teaching Activity 1：Issues in Human Relationships 1
　　Teaching Activity 2：Issues in Human Relationships 2
　　Teaching Activity 3：Introduction to Mathematical Thought
　　Teaching Activity 4：Introduction to ICT
Part 2. School of Education
　　Teaching Activity 5：Arithmetic Education Ⅱ
　　Teaching Activity 6：Science Education I
　　Teaching Regiinal 7：Children's Music Activities
Part 3. Regional collaboration
　　Teaching Activity 8：English Education in a Local Bank Using Active Learning

【 Introduction 】

Since its founding, Miyazaki International College has provided a distinctive educational style in which English-based Active Learning (AL) is incorporated into nearly every class with the educational goal of developing human resources capable of succeeding in our increasingly international society. In 2014, the college commenced research integrating both Theme I (Active Learning) and Theme Ⅱ (Visualization of Learning Outcomes) of the Acceleration Program for University Education Rebuilding (Acceleration Program) from the Japanese Ministry of Education, Culture, Sports, Science and Technology, and since then, we have continued to further examine AL-based teaching methods, assessments of learning outcomes, and assurance of educational quality upon graduation.

The purposes of the Acceleration Program at our college are to assess Critical Thinking (CT) and English skills, our college's primary learning outcomes, and to develop, implement and systematize AL methods to maximize learning outcomes. To date, our college has developed and systematized 33 AL methods, the contents of which are provided on the next page. Last year, we began releasing collections of cases aimed at promoting the kinds of AL practices we employ in our college.

This year, we have created a summary of our AL methods, class procedures and learning outcomes, and in addition to the School of International Liberal Arts, we have expanded the scope to include the School of Education and community outreach activities. Furthermore, we have continued to clarify learning outcomes, and as a way of conveying our classroom procedures, we have also included comments from faculty members and students. Besides the five English skills including reading, writing, listening, speaking and vocabulary, we have included examples of work in the classroom that utilize AL methods that are effective in improving each of the following seven Critical Thinking skills: ① identifying relevant information, ② evaluating the reliability of information, ③ methods and strategies, ④ categorical thinking, ⑤ perspectival thinking, ⑥ application and evaluation, and ⑦ deductive logical inference.

Amidst increasing internationalization, it is critical to improve one's ability in English, the international common language. In accordance with the new government education guidelines, English has become an official elementary school subject, and greater emphasis is being placed both on cultivating English communication skills in junior high school and high school and on deepening autonomous and interactive learning through the application of AL as an educational technique. We hope that this collection of cases will aid in enhancing and proliferating AL instruction methods.

Part I
(School of International Liberal Arts)

Part I introduces examples of AL in the School of International Liberal Arts. It begins with an introduction to the 33 AL methods used by the School of International Liberal Arts. The 33 methods are listed in five categories. This is followed by four examples. Each case shows the AL method used, the target CT skill, and the target English language skill. Easy-to-understand explanations of the lesson procedures for achieving the desired results are also provided. Additionally, comments from faculty members and students who have experienced AL are included. You can see the AL methods in practice in English language instruction in the School of International Liberal Arts.

The Systematization of Active-Learning Methods

(Miyazaki International College/School of International Liberal Arts)

Miyazaki International College conducted interviews and class observations with faculty members of the School of International Liberal Arts, analyzed the AL methods they use, and identified the following 33 types of AL methods according to their characteristics.

Outward	Learning activities with others.
Inward	Individual learning activities such as thinking and writing.
Prepared	Learning activities that require preparation in advance.
Extemporaneous	Learning activities that arise according to the situation.

Categorization of MIC Active Learning Teaching Strategies (ALTS)

Category 1
Inward-Prepared
1. Creative Writing
2. Self-Assessment
3. Written Paraphrases and Summaries
4. Feedback Survey/ Report
5. Journal Writing
6. Response/Reaction Writing
7. Senior Thesis

Category 2
Outward-Prepared
1. Skits and Dramatic Productions
2. Formal Debates and Panel Discussion
3. Presentations and Reverse Presentations
4. Creative Recitations
5. Surveys and Interviews
6. Peer Teaching

Category 3
Inward-Extemporaneous
1. Written Peer Review of Written Work
2. Pause for Reflection
3. Active Listening
4. Close Reading
5. Symbolized Paraphrases and Summaries

Category 4
Outward-Extemporaneous
1. Interactive Lectures
2. Facilitated Discussions
3. Free Discussions
4. Case Studies
5. Role Plays and Impromptu Skits
6. Jigsaw Activities
7. Oral Paraphrases and Summaries
8. Informal Debates
9. Group Work on Questions
10. Think-Pair-Share and Think-Group-Share
11. Oral Peer Review of Written Work

Category 5
ALTS in All Categories
1. Cooperative Student Projects
2. Simulations and Experiments
3. Community Based Projects
4. Student-Created Assessment Criteria

Explanation of AL Methods at Miyazaki International College

Details on the 33 AL methods used in the School of International Liberal Arts are as follows.

Category 1: Inward-Prepared (Seven types)

❶ **Creative Writing**

Students write about their thoughts and emotions by creating a story, developing characters, and using other literary elements.

❷ **Self-Assessment**

Students make a self-assessment about their own performances in relation to course standards and criteria created by teachers.

❸ **Written Paraphrases and Summaries**

Students write the main points by paraphrasing and summarizing.

❹ **Feedback Survey/Report**

At the midway point or several times per semester, students provide feedback and an evaluation of the class, including which activities they enjoyed, what activities found effective and what kinds of projects they would like to take part in, or provide feedback on behavioral goals to improve the effectiveness of learning.

❺ **Journal Writing**

Students write on various topics such as their own thoughts about class and homework, how to study, and their successes and failures, etc. Journals typically require less research than term research papers, and teachers may choose to give feedback, edit, or evaluate. Typically, however, the instructor does not award grades and check grammar, as the objective is often the development of writing fluency.

❻ **Response/Reaction Writing**

Students read a passage or passages and write their own opinions. It is often the case that students write a summary and then write their own opinions.

❼ **Senior Thesis**

Students read relevant literature and conduct detailed research, formulate a thesis or hypotheses, formulate research questions, plan an outline, and go through the cycles of writing, editing, and revising under the guidance of a senior thesis advisor.

Category 2: Outward-Prepared (Six types)

❶ **Skits and Dramatic Productions**

Students act out prescribed encounters with another or multiple students in front of the class, working with fixed language patterns and expressions if language acquisition is (part of) the goal. Time is typically given for rehearsal outside of class. In dramatic productions, students have ample time to rehearse and the productions can consist of a cast from one to about ten people. Students could also take a scene from a novel.

❷ **Formal Debates and Panel Discussion**

Students argue for or against an issue in a structured way and are given time to prepare (typically outside of class) and have set times for speaking and rebuttal. In panel discussions, a group of students deemed knowledgeable about a specific issue or topic gathers to discuss said topic in front of an audience. Students ask questions or react to the views and opinions of other panel members.

❸ Presentations and Reverse Presentations

Students present content individually, as a group to the whole class, or to smaller groups. The content of their presentation can be prepared as slides or sometimes posters, either individually or in cooperation with co-presenters of typically three to five people. In reverse presentations individuals or small groups prepare content as they would for regular presentations, but instead of presenting to the class, the audience poses questions to which the presenter responds. The presenter must also be able to solicit good questions from the audience.

❹ Creative Recitations

Individually or in groups, students recite poetry or other creative writing without having memorized it word for word to the whole class or to smaller groups.

❺ Surveys and Interviews

Students prepare questions and do field work to collect data for a larger project.

❻ Peer Teaching

Assuming the traditional role of teacher, students work individually or in groups to conduct a lesson presented to the whole class or to small groups. Lessons can take the form of lectures, workshops or participatory activities. Instructors can run structured lessons using a PowerPoint presentation or other materials prepared in advance, or can employ a more free extemporaneous format.

Category 3: Inward-Extemporaneous (Five types)

❶ Written Peer Review of Written Work

Students share their writing assignments - typically essays - and offer advice to each other. Students can use peer assignment sheets designed by teachers or students. The sheets are filled out and returned to the writers.

❷ Pause for Reflection

Teachers allow time in class for students to think and reflect upon presented or read materials, or simply allow time to formulate an opinion.

❸ Active Listening

When presented with a lecture or recorded listening passage in class (or outside class) that is typically challenging to comprehend, students are instructed to listen for key words or for general meaning. Through repetition of the lectures or replay of listening passages (though repetition may not always occur), students gradually construct the fuller, more complete meaning.

❹ Close Reading

Students read and think deeply to go beyond surface comprehension of a text in order to interpret meaning (useful in poetry).

❺ Symbolized Paraphrases and Summaries

Students paraphrase or restate the main points of a passage or lecture using some form of symbolism, whether through pictures, graphs, charts, or any form of expression outside language.

Category 4: Outward-Extemporaneous (Eleven types)

❶ Interactive Lectures

Lecturing by instructors where students are frequently required to ask questions and to offer opinions and views on the material being delivered.

❷ Facilitated Discussions

Student-lead discussions in which one student acts as the facilitator and the other students participate based on explicit instructions and guidance with regard to their assigned or chosen roles.

❸ Free Discussions

Students are given open or allotted time in class to discuss a particular issue, passage, etc. They are not assigned roles so it is up to group members to decide what participants' roles should be, if any.

❹ Case Studies

Students investigate a case that is presented to them by the teacher and try to draw conclusions and interpretations that would illustrate preferred practices.

❺ Role Plays and Impromptu Skits

Students play/act out roles in short dramatic presentations. They typically script out language they will use and rehearse the roles (often in class) prior to performing them in front of others. In impromptu skits, students are called upon in an impromptu fashion to act out a scene using appropriate language patterns and expressions.

❻ Jigsaw Activities

Students have different information and have to communicate to convey the information to each other in order to finish the task. Students could also be involved in discussions in one group and then migrate to different groups to report on their previous discourse.

❼ Oral Paraphrases and Summaries

Students orally paraphrase or restate the main points of a passage in their own words.

❽ Informal Debates

Students argue for or against an issue in a less-structured format. They are usually not given time outside of class to prepare, do not have set speaking and rebuttal time limitations, and may often pick their own sides to defend.

❾ Group Work on Questions

Students work on questions in a group wherein cooperation is encouraged.

❿ Think-Pair-Share and Think-Group-Share

Students share opinions/answers/solutions etc. with a partner or group and perhaps then share consolidated content with a larger group or the whole class.

⓫ Oral Peer Review of Written Work

Students discuss a given assignment or content with their partners or group members and give constructive feedback.

Category 5: ALTS in All Categories (4 items)

❶ Cooperative Student Projects

Students work together sometimes doing different tasks to complete a project which could be upon completion presented as a presentation, report, essay, scrapbook, website/webpage, or in some other format.

❷ Simulations and Experiments

Students apply knowledge they have learned to a real-life simulation, such as an internship for applying knowledge of economics. Simulation may also be used before a lecture or discussion as a method of teaching new information. As an intercultural simulation, for example, students can think about cultural norms and adaptation in a situation where half of the population of Japan is foreigners.

❸ Community Based Projects

Projects in which students cooperate with members of the wider community either as a group or individually. Community volunteer projects are one example.

❹ Student-Created Assessment Criteria

Standards and criteria for assignments performance, projects, etc. and even course evaluation, are created in whole or in part by students.

01

Course Title Issues in Human Relationships 1

ALTSs Utilized

【Category 1 】Creative Writing
【Category 3 】Active Listening
【Category 3 】Close Reading
【Category 3 】Pause for Reflection
【Category 4 】Group Work on Questions
【Category 5 】Cooperative Student Project

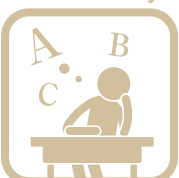**Target English Skills**

★★☆ Speaking

★★☆ Listening

★☆☆ Reading

★☆☆ Writing

★★☆ Vocabulary

Classification of MIC Critical Thinking Skills

1 Identifying Relevant Information
2 Evaluating the Reliability of Information
3 Methods & Strategies
4 Categorical Thinking

5 Perspectival Thinking
6 Application & Evaluation
7 Deductive Logical Inference

Learning Outcomes

❶ Students are expected to learn, understand and produce their own understanding of reasons why people fall in love and break up.

❷ Students need to work together to communicate, problem solve and share understanding.

❸ Students are expected to read, listen, reflect and creatively write showing their English vocabulary, grammar and writing skills.

Aya Kasai

My name is Aya Kasai. Having studied and worked in multiple countries, I have special interests in cross-cultural dialogue. I studied counseling psychology with a concentration in expressive arts therapy at California Institute of Integral Studies. I use creative arts to conduct workshops that promote peacebuilding, personal and social healing, and empowerment.

Team Teacher Alan Simpson

My name is Alan Simpson, I'm from Scotland, where I did my first degree in Electronic and Electrical Engineering, Then I worked as a test-systems engineer on fighter airplanes for 5 years. After that, I was a corporate teambuilding and charity event coordinator. Then I became an English teacher and trainer in Japan, first in a private English school, then a large Japanese engineering company. My Masters' degree is in teaching English, and I have a strong research interest in Business English.

Activity Title ▶ Treasure hunting magical ingredients of romantic love

【Time Required】 90 minutes/lesson x 2 times
【Appropriate number of students】 Groups of 4 for, 16 to 20 students
【Materials/Resources Needed】
1. A handout about why people fall in love.
2. Three important qualities for a loving relationship, stuck to the portrait, tree and piano with sellotape.
3. Origami hearts.
4. Cards, for Tanabata wishes

Procedure

01 Listen to some reasons why we fall in love.

02 Then they needed to read and solve some riddles, which tell a place in MIC.

Riddle 1: I like eating cereal for breakfast, but it's difficult to eat with chopsticks. In a box, there are lots of keys. Sounds nice!!!

Answer 1 Spoon café, inside the piano.

03 Set up the treasure hunt to find three important qualities of loving relationships. Groups of 4 were made, and the students were told to go to different places around MIC to start.

Riddle 2: A girl worked really hard, but she had no time to make friends. One day she met a boy and fell in love. However, she got distracted and didn't work hard anymore. So her dad got angry, and said that they could only meet once a year when she had finished her homework.

Answer 2 Tanabata tree in the lounge

04 At each location, there was one important quality for a loving relationship. They then read a text and wrote down their understanding of the three qualities of love.

05 In the next class, they were given origami hearts with some of the ways people grow close written inside. They had to complete a gap fill activity.

Riddle 3: This person founded Miyazaki International College.

Answer 3 Mr. Otsubo's portrait, in building 1.

06 We brainstormed about why relationships end, and wrote the causes on the whiteboards.

【Activity Analysis Report】

Issues in Human Relationships 2

ALTSs Utilized

【Category 1 】Journal Writing
【Category 3 】Pause for Reflection
【Category 4 】Role Play
【Category 4 】Facilitated Discussion
【Category 4 】Interactive Lecture
【Category 5 】Cooperative Student Project
【Category 5 】Simulation

Target English Skills

★★★
Speaking

★★☆
Listening

★☆☆
Reading

★★★
Writing

☆☆☆
Vocabulary

Instructor Comments

Alan Simpson

Make the whole school building a classroom! Use the body to improve concentration!

The subject was about love, so naturally all students were curious and they wanted to learn more. By creating an active learning treasure hunt the lesson became exciting, motivating, and involved teamwork to solve the puzzles and discover the important qualities in a loving relationship.

As a result of the activity, students were energized and they were able to focus on the reading task and produce good quality writing in the reflection task. Their interpretations of what love is were insightful and important for their lives, are showed fantastic active learning outcomes.

Student Comments

Improved speaking skills

In this lesson we learned about love relationships by cooperating in groups to find keywords hidden within the college using hints provided on a worksheet. I listened to the teacher's instructions, but at first, I did not understand what to do. However, by thinking deeply about the meaning of the passage, I was able to have fun finding the keywords. We exchanged lots of opinions about where we thought the keywords could be.

In terms of English ability, I feel that I improved in my ability to read passages in English as well as in my ability to converse with others in my group using lots of vocabulary words. One of the strengths of MIC is that we are able to use practical English, while still in Japan. As for critical thinking, while determining the answers to the keywords, I also maintained a broad outlook, and I reached the answers by appropriately analyzing whether or not any other conceivable possibilities exist. I feel that this improved my ability to think. Through this activity, I learned value of communication and the importance of looking at things objectively. These will be necessary when I enter society, and through this type of AL method, I intend to continue preparing so that I will be able to immediately begin contributing to society.

Shota Kai
(SILA: 2nd Year)

Mako Ikeda
(SILA: 2nd Year)
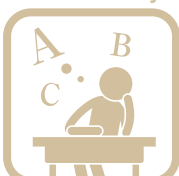
Classification of MIC Critical Thinking Skills

1 Identifying Relevant Information
2 Evaluating the Reliability of Information
3 Methods & Strategies
4 Categorical Thinking

5 Perspectival Thinking
6 Application & Evaluation
7 Deductive Logical Inference

Learning Outcomes

This lesson uses an exercise from the Theatre of the Oppressed (Boal, 1985) originally referred to as "Colombian hypnosis" (Boal, 2002, pp.51) to teach about power in relationships. Variations of the exercise are often adapted by workshop facilitators and teachers to assist participants explore relationship issues such as bullying. In this lesson, the exercise was used to highlight the bystander effect (Darley & Latané, 1968) and for students to practice problem solving as an active bystander. Each student is able to create a solution symbolically using their body first and then apply their solutions to real-life problems in people's lives or in society.

※Note: "Colombian hypnosis" is just an exercise name and it does not involve real hypnosis!

Aya Kasai

My name is Aya Kasai. Having studied and worked in multiple countries, I have special interests in cross-cultural dialogue. I studied counseling psychology with a concentration in expressive arts therapy at California Institute of Integral Studies. I use creative arts to conduct workshops that promote peacebuilding, personal and social healing, and empowerment.

Team Teacher Alan Simpson

My name is Alan Simpson, I'm from Scotland, where I did my first degree in Electronic and Electrical Engineering. Then I worked as a test-systems engineer on fighter airplanes for 5 years. After that, I was a corporate teambuilding and charity event coordinator. Then I became an English teacher and trainer in Japan, first in a private English school, then a large Japanese engineering company. My Masters' degree is in teaching English, and I have a strong research interest in Business English.

Activity Title ▶ A lesson on the bystander effect with a Theatre of the Oppressed exercise

【Time Required】 90 minutes/ 1 or 2 lessons

【Appropriate number of students】
Unlimited. As long as the room is big enough. Our class size was 20, which seemed just right.

【Materials/Resources Needed】
1. A classroom big enough to move around safely.   2. Worksheet for the written part of the activity.

Procedure

01

02

Demonstration of the bystander effect: The class forms a standing circle. Two volunteer participants stand in the middle of the circle, one person as a leader and one person as a follower. Everyone else in the outer circle are the bystanders and they are asked to say "Stop!" if they recognize violence in the relationship between the leader and the follower. The leader put a hand out and the follower keeps their face 30 cm away from the leader's palm. The leader moves the hand freely and the follower follows. They continue for a while and eventually the follower will seem tired. But usually it takes a long time before a student hesitantly says "Stop!"

Process and analyze: We ask the follower how it was. The follower will usually state that they wanted someone to say "Stop!" long before they did. The whole group discusses and analyzes why it took such a long time to intervene. Some of the common reasons are, "The follower looked like they were having fun." "I was afraid of becoming the next target." "I thought someone else would intervene." "I felt too shy to yell out." After the discussion, the instructor introduces the concept of the bystander effect (Darley & Latané, 1968). Continue with the discussion on where in their life or in society they might see the bystander effect.

03

04

05

Problem solving: In a group of seven, students will take turns playing the roles of perpetrator, victim and a bystander as they did in the demonstration. This time, they get to experiment applying different interventions to solve the problem and to make change. If there are seven people in their group, they are asked to come up with at least seven different interventions so everyone has a chance to create and try out their intervention.

Students discuss their ideas in small groups. This can be followed by a whole class discussion.

Application and writing activity: After they enact their interventions, they sit down to write the description of the interventions. Then, they are asked to apply the creative interventions to a real life or a social situation and to write possible interventions to problematic situations.
Instruction: "Connect the exercise to a real or imagined situation in your life, other people's lives or in society."

References
Boal, A. (1985). Theatre of the oppressed (C. A. and M. L. McBride, Trans.). New York: Theatre Communication Group.
Boal, A. (2002). Games for actors and non-actors (A. Jackson, Trans.). New York: Routledge.
Darley, J. M., & Latané, B. (1968). Bystander intervention in emergencies: Diffusion of responsibility. Journal of Personality and Social Psychology, 8, 377–383.

【Activity Analysis Report】

Instructor Comments

Empathic understanding through drama exercises

Aya Kasai

When students try to think in English, they can feel limited by their language ability. Providing an experience that helps students to "think with their body" first and then having them reflect upon and describe the experience in English helps them deepen their thoughts and gain insights. Through this activity, students will gain embodied and empathic understanding of possible human rights violations in relationships. Based on the insights they gained, students were able to experiment and practice their creative solutions in a safe classroom environment.

Student Comments

Move your body and convert your thoughts into English

In this class, we learned about human relationships in an active and fun way by moving our bodies and communicating. Students exchanged opinions about how to guide society as a whole in a good direction, and we thought about the framework of human relationships. In the group discussion, students who expressed their opinions acted as president and the other students took the role of company workers, and we exchanged a variety of opinions on the framework of an actual company.

Through this activity, I was able to learn how to communicate by expressing my own opinion and listening to the opinions of others. In addition, the teachers listened very closely to us, and I was able to have confidence in what I was saying. The atmosphere made it very easy to ask teachers about things that I didn't understand, and their answers were also easy to understand. In this class, I was able to think about the fundamental emotions that people feel and the frameworks of various types of human relationships.

Kosuke Kumeda
(SILA: 2nd Year)

In terms of English ability, there were many opportunities during group discussions and presentations to express my own opinions and listen to the opinions of others, so I gained more confidence in my speaking and listening abilities. As for critical thinking, I feel that I became able to see things from different perspectives by creating various situations in which people interact and repeatedly solve problems. Expressing myself by actually using my body enabled me to better empathize with others and imagine what they are thinking and also to think in a more concrete way.

Introduction to Mathematical Thought

ALTSs Utilized

【Category 3 】Pause for Reflection
【Category 3 】Active Listening
【Category 4 】Interactive Lecture
【Category 4 】Think-Pair-Share and Think-Group-Share

Target English Skills

☆☆☆
Speaking

☆☆☆
Listening

★★☆
Reading

★★☆
Writing

★★☆
Vocabulary

Classification of MIC Critical Thinking Skills

1 Identifying Relevant Information

2 Evaluating the Reliability of Information

3 Methods & Strategies

4 Categorical Thinking

5 Perspectival Thinking

6 Application & Evaluation

7 Deductive Logical Inference

Learning Outcomes

By the end of this activity students should be able to understand the basic principles of Boolean logic and how to solve problems using it. Students are required to not only solve problems, but also to write their own problems using Boolean logic. An extension of this activity can be asking students to create their own set of cards and write original stories/problems.

Anderson Passos

My name is Anderson, and I came to Japan in 2005. I'm from Brazil. I got my Ph.D. from Kagoshima University and I have many years of experience working in the IT industry, not only in Brazil, but also for a Japanese company as an SE in Tokyo. I joined MIC in 2010 and I have learned how to engage my students in the classroom through activities that not only employ Active Learning, but also require students to think critically about the content being taught.

Activity Title ▶ Boolean Logic

【Time Required】 30 to 40 minutes
【Appropriate number of students】 Any
【Materials/Resources Needed】
1. Scissors
2. A set of nine cards divided into three groups with three items in each group.
3. A couple of Boolean logic problems to be solved by students.

Procedure

01

02
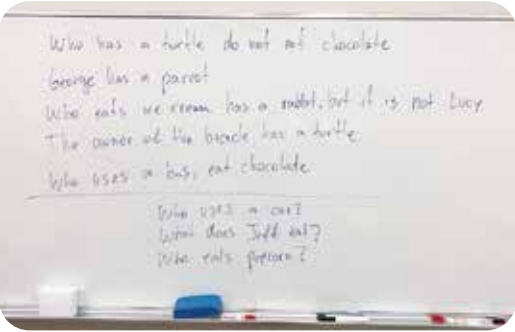
Instructor writes a simple problem using Boolean logic on the board. The problem should have the questions already stated and students will be given some time to solve it (can be skipped if your students already know Boolean logic).
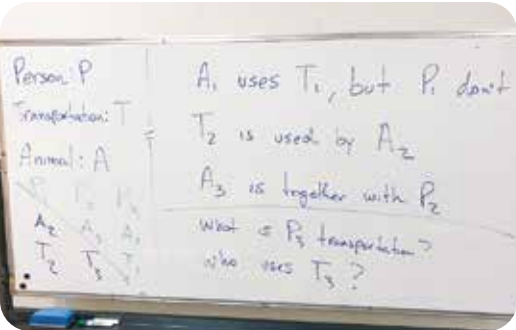
Students are given a copy of the instructors' card set.

03

Students are asked to cut the cards and make their own deck.

04

Students will be asked to make a grid using the cards and to try to solve a Boolean Logic problem (can be the same used in step 1)

05

To increase difficulty, the instructor can add additional cards making the problems more complex.

06

To increase the difficulty, the instructor can add additional cards or extend the activity by having students build their own sets and create their own problems.

ALTSs Utilized　【Category 1 】Feedback Survey/Reports
【Category 1 】Response/Reaction Writing

Classification of MIC Critical Thinking Skills

Target English Skills

1 Identifying Relevant Information　　5 **Perspectival Thinking**
2 Evaluating the Reliability of Information　6 Application & Evaluation
3 **Methods & Strategies**　　7 Deductive Logical Inference
4 Categorical Thinking

★☆☆
Speaking

☆☆☆
Listening

★☆☆
Reading

★★★
Writing

★★★
Vocabulary

Learning Outcomes

The main objective of this activity is to teach students how to properly formulate questions for surveys and understand the difference between a survey and a questionnaire. Students should end the activity understanding the different types of questions that can be asked, what kind of questions can create data problems and what kind of questions may be inappropriate.

Anderson Passos

My name is Anderson, and I came to Japan in 2005. I'm from Brazil. I got my Ph.D. from Kagoshima University and I have many years of experience working in the IT industry, not only in Brazil, but also for a Japanese company as an SE in Tokyo. I joined MIC in 2010 and I have learned how to engage my students in the classroom though activities that not only employ Active Learning, but also require students to think critically about the content being taught.

【Activity Analysis Report】

Instructor Comments　**Overcome dislikes with Boolean logic**

This activity often results in a very noisy classroom. Students get really excited once they understand the mechanics of Boolean Logic, and because they have the cards to assist them in solving the problems, it becomes fun because they feel empowered and capable of solving the problems on the board. It is a really good idea to try the problem without the cards first to emphasize the difference, that having the cards makes in understanding the problem.

Anderson Passos

Student Comments

Solve problems in an enjoyable way resembling a quiz

In this lesson, I did not use mathematics to simply calculate and find solutions, but rather developed the mathematical thinking skills needed for considering how I reached those solutions and why the calculations work that way, etc. This sounds difficult, but it is similar to solving a quiz, making the class very enjoyable. In addition, we learned not only about mathematical thinking, but also about the history of mathematics and various theorems. The theorems and ideas of historic mathematicians are used more than we think in our daily lives. I feel like I have become able to think more efficiently thanks to this course. It also helped me obtain skills that benefit me in real life when analyzing how and why things change, etc.

In terms of English use, group work was very widely implemented, and because we participated in activities for creating/solving problems and cooperating together to come up with answers in English, our speaking skills improved. Additionally, because we read the problems in English, I feel like I acquired stronger reading skills at the same time.

Kodai Hayashi
(SILA: 1st Year)

Serina Yano
(SILA: 1st Year)

Activity Title ▶ Questionnaires and Surveys

【Time Required】 Two lessons
【Appropriate number of students】 Any
【Materials/Resources Needed】 N/A

Procedure

01

Instructor teaches students about question types, qualitative and quantitative data and inappropriate questions.

02

Students choose their topics, which are checked by the instructor

03

Students research about their topics on the Internet.

04
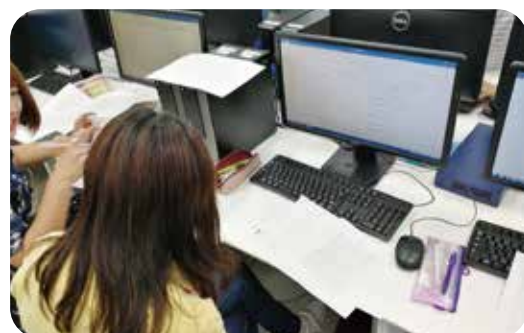
Students formulate questions that will be asked to other people.

05

Students gather answers from their colleagues in the classroom.
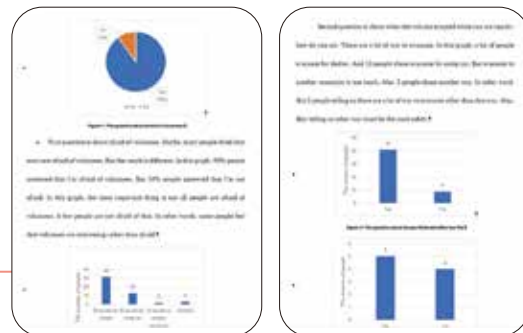
In the next class

06

Students analyze their answers.

07

Students make presentation materials such as graphs.

【**Activity Analysis Report**】

Instructor Comments

Learn the steps for conveying information

This activity can be used as a standalone activity or in conjunction with projects to retrieve data that will be used in other activities. In our case, one of our course objectives is to teach spreadsheet software. The questionnaires serve as the first step in retrieving data that students will use to create different graphs and write their own analyses in the future.

Anderson Passos

Student Comments

Create questions for accurate data collection

In this lesson, I conceived the topic myself, created questions on it, collected data, created a graph based on the data, and wrote a summary. It was very difficult to figure out what kinds of questions would be appropriate for making it easier to analyse the data later, but this turned out to be an essential step. While making my question list, friends and faculty provided plenty of advice by telling me what I should change to make the content better, thus I was able to collect very good data myself. It was challenging to survey approximately 50 participants, but everyone actively cooperated.

To develop English proficiency, I made a graph based on the data I collected, noted key points, and wrote a summary in the end. I had to write using more than 800 words, so of course my vocabulary increased in the process, and I was able to naturally acquire more grammar skills by looking up content that I did not understand. Overall, I think my writing skills improved. The fact that we get to research what interests us makes this class enjoyable, and by doing so we are also able to better learn the vocabulary and grammar we look up.

In addition, as we create graphs and summaries, we get to review how to use the software that we have learned so far and continue to master it further, thus reinforcing what we have learned. I believe this will benefit us in the future, regardless of the kind of company we end up working for. As IT continues to advance, it will become increasingly necessary to collect more data to create more effective graphs.

Yue Morinaga
(SILA: lst Year)

Part Ⅱ
（School of Education）

Part Ⅱ introduces AL examples for the School of Education. It begins with an introduction to the AL methods used by the School of Education. Next, three examples are introduced. For each case, easy-to-understand explanations of the lesson procedures for achieving desired results are provided. The comments of faculty members and students who have experienced AL are also included. Read on to see the AL methods in use in the School of Education.

Details of the ten AL methods used in the School of Education are as follows.

AL Methods in the School of Education

❶ **Review and Individual Q&A**

Ask and answer questions verbally during class to check what students have learned, connect learning to the next stage of instruction, and verify class content.

❷ **Quizzes and Reports**

Give a quiz at the end of the lesson to check what students have learned to connect learning to the next stage of instruction, or assign a report to reinforce what they learned.

❸ **Investigative study**

A method for students to study/learn given tasks and themes through in-class and out-of-class studying.

❹ **Group Discussions, Group Work, Group Reports**

A method of forming small groups of students so they can work together to solve given tasks. Includes pair work.

❺ **Field Work**

A method of promoting information collection through surveys and observation wherein the 'field' refers to locations both on and off campus (including tours of off-campus facilities, etc.).

❻ **Conversation/Problem Solving Lessons**

A method for deepening class understanding through conversation and discussion on a specific theme. Includes debates that promote discussion based on specific rules tested in teacher employment exams.

❼ **Roleplaying**

A method of experientially learning other points of view by having students act out scenes based on specific assigned themes and situations. Tested during teacher employment examinations.

❽ **Presentations**

A method in which students create presentation materials using PowerPoint etc. and present in front of others.

❾ **Lesson planning, mock class**

A method used in various subject/teaching method courses etc., in which the teacher creates lesson plans, practices specific classes, and cultivates practical educational skills while referring to the course of study guidelines with the goal of learning how to independently carry out a class.

❿ **PBL (Problem Based Learning)**

A learning method in which students make efforts to independently identify and solve problems to gain experience and knowledge.

Course Title Arithmetic Education II

ALTSs Utilized
❻ Conversation/problem solving lessons
❾ Lesson planning, mock class

Activity Title ▶ Mock Mathematics Class

【Time Required】 45 minutes per student
【Appropriate Number Of Students】 10 - 20 students
【Materials/Resources Needed】
Teaching plan, displays and other items to be used in class (including projectors, PC, etc.)
To prepare these, knowledge of the subject matter and teaching methods is essential.

Expected Outcomes

❶ To understand the goals of arithmetic education through careful reading of course of study guidelines.

❷ To understand the teaching content based on arithmetic textbooks and teacher edition textbooks, and to acquire perspectives on research on teaching materials.

❸ To learn how to run classes comprising an introduction, application, and summary.

❹ To create lesson plans.

My specialty is arithmetic and mathematics education. After completing my education at the Graduate School of Science and Engineering of Shimane University, I joined the Japan Overseas Cooperation Volunteer Program. Taking advantage of my experience, I went on to attend Hiroshima University Graduate School for International Development and Cooperation and to conduct research on the mathematical skills of developing countries. In general, the academic skills of children in developing countries are low, and learning basic calculations is one of the issues that the international community is facing. I am currently interested in arithmetic and mathematics education in developing countries and am also researching arithmetic and mathematics education in Japan. The guaranteeing of academic security for children is an issue common to all countries, and the training of teachers for this is essential. I am working hard to contribute to the mathematics education of Japan and developing countries.

Koji Watanabe

〈問題2〉
$\frac{1}{3}$ dLで $\frac{5}{7}$ m² ぬれるペンキ
があります。1dLでは何m²
ぬれますか。

〈問題1〉
2dLで $\frac{5}{6}$ m² ぬれるペンキ
があります。1dLでは何m²
ぬれますか。

Procedure

01

Thoroughly study the teaching materials using textbooks and guidebooks as the main resources in preparing for mock classes. Use the process of developing lesson plans to continue to drill the teaching materials and lesson structures based on teaching material research.

02

Students conducting a mock lesson willl explain the contents of the lesson and related ideas/intentions at the beginning of the lesson while referring to the lesson plan.

03

In the introduction stage of the lesson, think of appropriate questions to ask so that the children may show interest, and indicate that you value viewpoints that increase their motivation to learn. For that purpose, it is important to review material previously learned and to present the "objectives" for the lesson.

04

During the development stage, consider and practice appropriate guidance in preparation for the "summary" of the lesson, while walking around the classroom and providing formative evaluation to confirm the understanding of the children.

05

In the final stage, present a summary of the lesson "objectives" and reflect on the learning. In some cases, students can be asked to solve related problems to reinforce learning. After the mock lesson, discuss points of improvement with the students who played the role of the children and obtain hints for improving teaching skills.
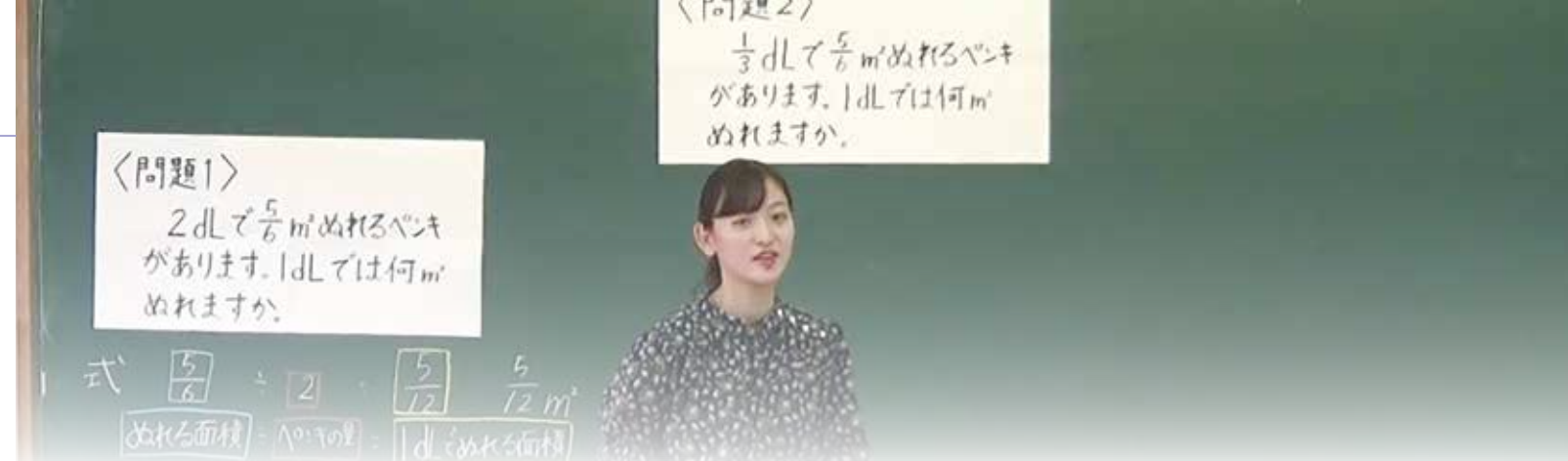
【Activity Analysis Report】

Instructor Comments ▶ Practice making a lesson plan through a mock lesson

Koji Watanabe

All students will generally do mock lessons. If there are a lot of students in your class, a group of two should be formed where both students plan a lesson on the same content and develop a lesson plan together. Students will then refine the lesson while referring to the two lesson plans. On the day of the mock lesson, the mock teacher will be chosen by lottery.

In the preparatory stage of the lesson plan, students should understand the contents of the lesson accurately from the start, and also consider the accuracy of the materials they prepare, how to use ICT equipment and the effectiveness of doing so. Additionally, they shall repeatedly practice for the actual mock lesson. In developing a lesson plan, they will be instructed to make sure that all the Japanese is accurate and that the intention of all wording is clear. This is intended to improve their writing skills.

In the actual mock lesson, students will be observed from many perspectives, such as voice volume, word choice, class response, how they use teaching tools and ICT equipment, how they provide individual and group guidance, how they establish independent and group-solving situations, how they walk around the classroom to provide individual guidance, etc. Various challenges may be observed, such as well-prepared students facing issues with engaging the class, or students engaging the class sufficiently but not prepared well enough in advance, thus teaching inaccurate knowledge.

Mock lessons will be filmed for review purposes. There will likely be instances in students' future teaching careers where they will wish to record their daily lessons through video etc. in order to improve as teachers. Video reflection is therefore used in anticipation of this.

Studying teaching materials, developing a lesson plan, practicing a mock lesson, and reviewing it is a long-term process. Watching other students' lessons is also a good opportunity for learning various intentions and ways of teaching. Each student's specific tasks will vary, but I hope that they will realize the importance of taking the time to improve and of approaching tasks from multiple perspectives.

Student Comments ▶ A class where the children have questions

In this class, I learned how to develop lesson plans and how to run practice lessons. Through these efforts, I was able to think about class development/instruction, and acquire the practical skills needed to teach a class. When developing a lesson plan, I will discuss it many times with other students and teachers, and structure the class giving consideration to the development stage of the class year I am teaching. After first carefully thinking about the class structure, I was able to acquire a variety of new ideas by learning more about the class with other students and teachers. During the mock lessons, I had to act as if I were actually teaching children while paying attention to the volume of my voice, the atmosphere of the lesson, and my way of instruction. Although I was actually teaching a class to other college students, those students taking the class pretended to become children and think about ways to improve the class from such perspective. As playing the role of both teacher and student allows us to consider different perspectives, I was able to analyze how I would instruct the class I was taking and think about it together with everyone else. Through this process, I discovered challenges with class structure and instruction, and further improved the teaching skills I need to become a primary school teacher.

Maaya Hamaguchi
(EDU: 3rd Year)

Course Title ▶ Science Education I

ALTSs Utilized
❷ Quizzes/Reports   ❸ Investigative Study
❻ Conversation/Problem Solving Lessons
❽ Presentations

Activity Title ▶
How to respond when students ask "why?" or "how come?"
-Understanding the scientific knowledge and ideas behind
elementary school science instruction-

【Time Required】 45 minutes per student

【Appropriate Number Of Students】 10 - 20 students

【Materials/Resources Needed】
Elementary school course of study guidelines for science, reference books (elementary, junior high and high school textbooks, reference material, etc.), lab equipment as needed, objects to be used for displaying presentations (including projector, PC, etc.)

Expected Outcomes

❶ To understand the content of science taught in elementary school and the scientific knowledge and ideas behind it.

❷ To explain the scientific knowledge behind the content being taught in a logical manner.

❸ To create material (Word and PowerPoint material) for easy-to-understand explanations.

I teach natural science subjects including "Science", "Science teaching methods", and "Life and science". After graduating from the Bioresource and Bioenvironment Department, Faculty of Agriculture, Kyushu University, I taught biology as a high school instructor and pursued my Master of Arts in science education. From a global perspective, Japanese children have high scientific literacy, but at the same time they have little passion for (minimal interest; place little value on or fail to prioritize) science. However, science and technology are all around us, and knowing their principles and mechanisms enables us to live more wisely and affluently. I would like to explore methods of teacher training and educational practices that enable instructors to convey the joy, value and perspectives of science.

Mai Sakakura

01
Study the content of elementary school science instruction described in the course of study guidelines and determine the units that will be handled by each person.

02
Ensure in advance, with the teacher in charge and the students making the same presentation, that explanations in the prepared material and presentations are free of scientific errors and that they can be easily understood by children.

03

04

05
Students shall listen to the presentations of others while considering whether they have understood the biology, geology, physics, and chemistry-related knowledge/ideas needed to explain the contents of instruction and answer "why?" and "how come?" questions, and whether the content has been carefully considered by the presenter and can be explained logically.

07
As a post-class assignment, all students will write and submit a report explaining the content of the instruction and answering related "why?" or "how come?" questions.

Students should be able to understand the content to be taught in their unit using textbooks/teacher edition textbooks and to explain the scientific knowledge behind it using their own basic knowledge acquired throughout junior high school and high school.
※For example, in the "objects and weight" unit in third grade elementary school, children acquire the knowledge and skill to know that "objects do not change in weight even if they change shape" and that "objects may weigh differently even if they have the same volume", but in addition to this, they should also be able to explain why this happens using their knowledge and ideas concerning chemistry. Using the knowledge acquired throughout junior high school and beyond high school, it is essential to be aware that all substances are composed of molecules and atoms, and to continue to review that idea so that the concept of "particles" can be taught in elementary schools. Based on this and on the reality of elementary school students, students shall consider how to explain content in a way that is easy to understand when asked "why?" or "how come?".

06
Students will also play the role of host to facilitate the presentations on the day they are held. Each speaker will present for 20 minutes (15-minute presentation, 5-minute Q&A) using PowerPoint and other prepared teaching materials.

During Q&A sessions, students will be asked questions on content that was difficult to understand and points that need clarification, as well as "why?" and "how come?" questions. The questions will be answered by the presenter, but the faculty in charge will provide assistance and explanations for questions that the presenter could not answer or that exceed basic high school knowledge.

【Activity Analysis Report】

Instructor Comments

Science education that starts with "why?" or "how come?" questions

Mai Sakakura

Presentations will be given by all students, with each student in charge of one unit. The goal of having each student handle one unit is to encourage all students to wonder "why?" or "how come?" about the content of elementary school science instruction and to acquire the ability to explain the content of elementary school science using knowledge from junior high and high school. Elementary school science consists of four fields: earth, life, particles, and energy. These form the foundations of earth science, biology, chemistry, and physics beyond high school. Teaching science as an elementary school teacher requires a wide range of knowledge and expertise in geology, biology, chemistry, and physics.

In particular, there are many students who struggle with chemistry and physics, and some of those who have been assigned to units in the particle and energy field at first do not know how to explain the content (using their own knowledge), even though they fragmentarily memorized terms such as atoms, acids and alkalis, and ionization tendency. The clear goal of this lesson is to be able to answer "why?" or "how come?" questions, so it is important to not only memorize pieces of knowledge, but to put it all together and provide logical explanations. Additionally, by using junior high to high school knowledge and ideas to explain the concepts behind science, it is possible to understand how it all connects to elementary school learning.

Throughout the presentations, students began to raise various questions that were not directly related to the teaching content. Science is a subject that deals with very familiar phenomena such as magnets and electricity, weather, the moon/stars, and insects. This is precisely why children have a lot of "why?" and "how come?" questions. When teaching a class where you can think about and explore the answers to these questions together with students and provide guidance, it is very important to first ask yourself "why?" or "how come?" regarding various phenomena.

Each student will present only one unit, but by thoroughly examining the contents of that single unit and understanding and explaining the ideas behind it relating to geology, biology, chemistry, and physics, I hope they will be able to apply their knowledge to other fields as well and become able to provide logical explanations. Easy-to-understand classes depend greatly on the solid knowledge of teachers. The skills acquired in this course will form the foundation for preparing lesson plans in Science Education II and III and for conducting mock classes for children.

Student Comments

Preparation for answering the questions of the children

In this class, presentations were given by all students, with each student in charge of one unit. In order to conduct a class that is easy to understand by the other students, each student made prior preparations. Having no experience teaching a class, I was anxious at first about whether the class would go well, or whether the students would understand my explanations. However, having had the opportunity to share the content of my class with the other students doing mock lessons that day and with the instructor of the course, I was able to discover numerous questions about my own unit from varied perspectives. Furthermore, by researching and resolving those questions, I was able to develop confidence and explain the content of the lesson logically during my mock lesson. After the lesson, we had to submit a report on the things we learned in teaching our mock lessons, so by teaching each other the things that we did not understand, students were able to gain deeper understanding of the content of our teaching.

Through this course, I acquired the basic knowledge, methods and skills required to develop teaching plans on the basis of actual class situations. I also learned that because the desire to learn is developed in children when they ask "why" or "how come", as students it is important for us to have our own questions and to become able to provide explanations for them.

Maria Nishimura
(EDU: 2nd Year)

Course Title **Children's Music Activities**

ALTSs Utilized: ❶ Review and Individual Q&A ❷ Quizzes and Reports ❹ Group Discussion, Group Work, Group Reports ❻ Conversation/Problem Solving Lessons ❽ Presentations ❿ PBL (Problem Based Learning)

Expected Outcomes

❶ Deepen understanding of music knowledge and improve singing expression skills.
❷ Enhance sensibilities toward and ability to distinguish overlapping sounds in ensembles.
❸ Learn the process involved in making and discover the fun of expressing music as an ensemble.
❹ Improve communication skills by making music with classmates.
❺ Develop critical thinking skills through self-evaluation and evaluation of others

Activity Title ▶ A fun vocal ensemble ～ Let's sing 'Momiji' ～

【Time Required】 90 minutes per class

❶ Explanation of lesson plan (vocal ensemble) (15 minutes in class)
❷ Form groups (at random) (10 minutes in class)
❸ Group discussion (90 minutes in class, each group outside of class)
❹ Group practice (30 minutes in class, each group outside of class)
Group presentations, group evaluations, self-evaluations (90 minutes in class)

【Appropriate Number of Students】 4 students x 10 groups, Total 40 students
【Materials/Resources Needed】
・Musical score
・Class reports
・Group learning individual evaluation list (including group discussion records)
・Group evaluation list

I work with students to show them how to teach music through subjects such as "Music education", "Piano/voice", "Music", "Music and play", "Childcare guidance methods (musical expressions)", and more. I am also interested in music activity research that makes use of my qualifications as a music therapist, and in teaching music using ICT materials. Though music demands inner sensibility, learning in groups is indispensable for engaging in such expressive activities, making active learning an essential means of instruction.

Mariko Hidaka

01

Listen to an explanation of the meaning of vocal ensemble. Learn and acquire singing skills involving vocalization and pronunciation, etc.

02

Understand and practice each part of the melody of "Momiji". Acquire a sense and understand the meaning of the lyrics, melody and other aspects of the motif of the song as we practice singing.

03

Split into groups and hold group discussions related to specific performances.

04

Apply the content discussed in groups to practice in each group (including practice outside of class).

05

06

Present in groups

Students evaluate each other's group presentations and summarize self-evaluations.

【Activity Analysis Report】

Instructor Comments ▶ ## Learn the process of expressing music

Mariko Hidaka

Examples of such activities in one class period include physical expression activities, puppet and panel theaters, and musical performances. Efforts are also made to ensure variety among group members in each activity. In group discussions, students experience the process of creating a piece of music while sharing various ideas through expressive activities. To create a structured song with the sounds we express, we need to connect to and communicate our own sensibilities with each other. In doing so, our works are then presented as an artistic outcome of time. We each express the resonating sounds and share a space where we can appreciate each other's performances.

Expressive activities are indispensable, as they are a major element of music study. In this context, it is important to not just engage in activities, but to do so with the proactive intent of learning. To that end, we use group activity evaluation sheets for clear self-evaluation and peer evaluation of the subject matter of each piece of music, and information learned can be reinforced through such evaluation. Though sound and music enable nonverbal communication, they also allow us to see the space in which we express and play music as an ensemble as an active space, and to further develop it through verbal communication.

Student Comments ▶ ## An ensemble created by four people

In this class, students acquire basic music techniques performed by class and school groups, experience a wide range of choral and instrumental music, and learn to implement music activities. In this "fun vocal ensemble" activity, I was able to improve my vocal expression skills and enjoy myself by singing "Momiji" in groups of four. At first, I was reluctant to sing in front of others. However, I discovered the joy of singing as I worked with my classmates to pinpoint areas that needed improvement, shared opinions, and created better music. Rather than singing with a lot of people at the same time, working in a small group of four makes it easy to hear each other's voices and exchange opinions. I believe this allowed us to become aware of our own voices, which we would not have been able to do in large groups, and to improve accordingly. In preparation for becoming an educator, I learned to use my own experiences to acquire a childcare and teaching perspective that takes into consideration the feelings of the children.

Also, the self-evaluations at the end of each hour led to success in each ensuing exercise, and I was able to discover other people's strengths by evaluating the group presentations of other students.

(Left) Momoka Hirabara
(EDU: 2nd Year)

(Right) Momoko Hori
(EDU: 2nd Year)

Part III

（Regional collaboration）

08

Social contributions of Miyazaki International College (MIC)

English Education in a Local Bank Using Active Learning
Alan Simpson, Lloyd Walker, Cathrine-Mette Mork

MIC provides workshops using Active Learning (AL) methods in English. AL methods are effective not only in educating students but also for English education in local companies. Here is an example of our faculty members using AL in English education at Miyazaki Bank, a local bank in Miyazaki Prefecture.

Miyazaki Bank asked MIC to teach their new employees and senior branch staff how to support foreign nationals in English with transactions such as opening accounts, so MIC dispatched lecturers to Miyazaki Bank to teach the English meanings of the buttons on the Japanese instruction panel of ATM machines. The bank employees also learned how to give instructions on closing accounts, depositing and transferring money, and how to explain to customers about other transactions in English.

This is just one example of how MIC's AL methods are also proving useful in teaching English in the local community.

An example of Lecture materials

操作キー	Button (Meaning)
クレジット・カード	**Credit card withdrawal** (withdraw money from your credit card)
お振り替え	**Account Transfer** (move money to another account)
暗証番号変更	**PIN change** (change your ATM Personal Identification Number)
限度額変更	**Bank account withdrawal limit change** (request to change the bank account withdrawal limit)
カードローン	**Bank loan** (withdraw money using a bank loan)
カードローン返済	**Bank loan repayment** (repay some of the bank loan)
お振り込み	**Transfer** (transfer money to a bank account at another bank)
振込カード登録	**Transfer card registration** (create a card for easy transfers to a specified account)
お引き出し	**Withdrawal** (withdraw (take out) cash)
ご預金	**Deposit** (deposit (put in) cash)
残高照会	**Balance inquiry** (check how much money is in your account)
通帳記入	**Bank book update (passbook)** (print a record of recent transactions in your bank book)
定期ご預金	**Savings account deposit** (deposit (put in) cash into your savings account)

Lecturers

Alan Simpson   Lloyd Walker   Cathrine-Mette Mork

Editorial Note

The new course of study guidelines emphasize the introduction of elementary school English subjects, the nurturing of English communication skills in junior and senior high schools, and independent and interactive deep learning through the educational method of AL. AL has also been adopted in higher education, where class activities such as group work and presentations are frequently used. Outside of classes, the use of internships and study abroad is increasing, and students are taking the initiative to study independently.

Since its opening in 1994, Miyazaki International College has implemented higher education that incorporates advanced AL with a focus on international liberal arts education in line with its human resource development policy and educational philosophy of "Respect and Diligence". Its AP program aims to develop this traditionally implemented AL by systematizing, presenting and promoting it effectively.

To achieve that goal, following up on last year's activities, we published this second volume of examples of our program in Compilation of Active Learning Teaching Strategies vol. 2. This year, we have published institution-wide cases introducing AL focusing on specific learning outcomes, and have also provided specific procedures that faculty at other universities would find helpful. In addition, by including the honest opinions of faculty members and students, the reasons for implementing AL and its results have become concretely observable. We hope that this publication will raise awareness of our university's advanced AL methods, and that AL will contribute to the improvement of the effectiveness of learning in higher education.