

Establishing a Framework for Social Implementation Education in Collaboration with Regions of Kochi Prefecture

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National Institute of Technology, Kochi College aims to cultivate human resources who can contribute to society by collaborating with the local community. The college emphasizes entrepreneurship education, which guides students through problem identification to solution implementation. Through a five-year "Social Implementation Education" program, the institution works with local companies and municipalities to provide practical learning opportunities, allowing students to engage progressively in entrepreneurship and regional problem-solving.

By utilizing ICT (Information and Computer Technology), the initiative expands its activities to cover the entire Kochi Prefecture (All-Kochi) and fosters collaboration between students and faculty (All-Kochi KOSEN) to address regional issues. This approach aims to broaden students' perspectives and increase their engagement with local businesses, government agencies, and community organizations through collaborative learning.

Starting in the 2024 academic year, the "Regional Collaborative Practice" course will be a mandatory subject, extending its scope across the entire prefecture. The course will recruit companies, municipalities, and organizations willing to provide information on regional issues and collaborate on solutions. Furthermore, a support system integrating both general and specialized subjects will be established to expand students' horizons and promote collaborative learning.

In 2024, 40 teams participated in activities, with 28 teams collaborating with external organizations, including 17 local companies, government agencies, and community groups. This initiative enabled the college to address issues in remote and mountainous areas. At the results presentation meeting, all first- to third-year students attended as part of their career education, and 20 representatives from businesses, government, and educational institutions also participated, providing positive feedback.

Additionally, the course led to an increase in the number of students seeking the "Regional Revitalization Practitioner" certification—a title awarded to those aspiring to contribute to regional development through hands-on experience.

Through a comprehensive educational program focusing on discovering and solving regional issues, students deepen their understanding and affection for the local community while enhancing their commitment to contributing to regional development. This initiative fosters the growth of local innovators who will drive future regional innovation.

Keywords: Social Implementation, Career Education, Regional Collaboration, Entrepreneurship, Technical Education, Local Innovator

Introduction

Technical education must evolve to address not only technological advancements but also the complex challenges faced by local communities. As regional revitalization becomes a national agenda in Japan, institutions such as KOSEN are uniquely positioned to train students who can identify and solve real-world problems. Kochi KOSEN has established a career education program centered on entrepreneurship and regional collaboration, aiming to cultivate young professionals who can drive sustainable innovation in local areas. This paper reports on our efforts to establish a sustainable framework for social implementation education through entrepreneurship-based learning and regional collaboration activities. We also present results and discuss future challenges

Objectives and Background

To foster students at Colleges of Technology who can contribute to society in a new era, it is essential for educational institutions to collaborate with local industries and communities, engaging in co-creative educational development. At Kochi National College of Technology, we have been promoting education that aims to nurture students capable of contributing to society through active collaboration with the local community.

Particularly, we place strong emphasis on entrepreneurship education that encompasses the full cycle from identifying problems to implementing solutions. As illustrated in Figure 1, our five-year career education program is structured to gradually develop

these capabilities. Through collaboration with local companies and government offices, we provide students with practical learning experiences.

Specifically, 1st- and 2nd-Grade students participate in introductory and foundational courses on social design and entrepreneurship. In the 3rd-Grade students learn from the experiences of local entrepreneurs in a regional studies course. In the 4th-Grade, they engage in hands-on problem solving through the “Regional Collaborative Practice” course, and in the 5th-Grade, they apply their knowledge and skills in graduation research projects, some with the goal of launching their own ventures.

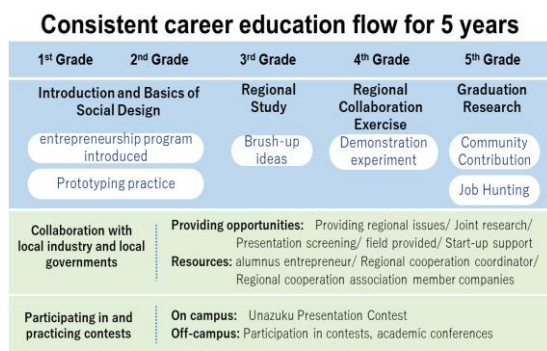


Figure 1 Consistent career education flow for 5 years.

In order to expand our efforts to include remote areas within Kochi Prefecture—regions that have been difficult to support in the past—we are utilizing ICT to extend our activities across the entire prefecture (“All-Kochi”). This initiative is implemented jointly by faculty and students (“All-Kochi KOSEN”). Through this approach, we aim to broaden students’ perspectives and increase their engagement with local issues by fostering collaborative learning with local businesses, government entities, and community organizations.

Enhance Educational Program

In 2024, our program was enhanced through a series of initiatives aimed at deepening collaboration with local communities and industries in the context of problem-based learning. The major components are as follows:

1. Broadening Regional Engagement for Problem-Based Classes

We actively invited local communities and companies to provide real-world issues that students could engage with in two key courses:

- 2nd Grade course: Fundamentals of Social Design – Local and regional organizations shared current social issues, offering students opportunities to understand and analyse community needs.
 - 4th Grade course: Regional Collaborative Practice – Students worked in collaboration with local partners to tackle real problems through year-long team projects.
2. Enhancement of the 4th-Grade “Regional Collaborative Practice” Course

Significant improvements were made in 2024:

- The course was restructured from an elective to a mandatory subject, accompanied by an increase in faculty assigned to each student group.
- Teams of students collaborated with local companies and municipalities on issue-based research and development projects throughout the academic year, concluding with a formal presentation of outcomes at a final review session.

3. Institutionalization of the Company Research Seminar in Kochi as a Career Education Program

The Company Research Seminar in Kochi was officially integrated into the school calendar as a career education event. the 2024 event required participation from all students in Grade 1 through 4.

4. Strengthening Partnerships with the Regional Collaboration Support Council

To enhance long-term collaboration, companies that participated in or contributed to initiatives (1) through (3) were encouraged to join the school’s Regional Collaboration Support Council.

Member companies that joined were granted access to the school’s digital signage system, allowing for internal information dissemination and further visibility on campus.

Results and Achievements

1) Broadening Regional Engagement

Table 1 shows the annual transition in the number of student teams and collaborating organizations involved in the “Regional Collaborative Practice” course between 2022 and 2025.

Academic Year	No. of Students	No. of Teams	No. of Collaborative Teams	No. of Partner Organizations	No. of Support Teacher
2022	125	31	19	10	21
2023	123	31	23	10	14
2024	142	40	28	17	36
2025 (planned)	175	45	28	26	37

Table. 1 Number of participating teams and partner organizations in regional collaborative exercises

In 2024, significant growth was observed in both the number of students and collaborative teams. The number of partner organizations increased from 10 to 17, and the number of faculty advisors was more than doubled, ensuring sufficient support for each student group. For 2025, further increases are expected, particularly in the number of partner organizations, indicating a strengthening of regional engagement and institutional commitment.

These projects included collaboration with remote and mountainous communities that had previously been difficult to reach, enabled by web-based communication and on-site fieldwork. Figure 2 shows an online meeting with partner organizations in remote areas using digital collaboration tools.



Figure 2 Web discussions with remote community

Figure 3 depicts a pilot project of a mobile “third place” conducted in a remote location.



Figure 3 Fieldwork with remote community organizations

Figure 4 illustrates a programming workshop for elementary school students in a remote area. Through these initiatives, students gained opportunities to engage with communities that had previously been difficult to access.



Figure 4 Programming workshop with remote community

2) Dissemination of Results and Educational Impact

At the end of the academic year, a "Regional Collaborative Practice Presentation Day" was held. All first- to third-year students participated as part of their career education. Faculty reported that this event provided meaningful insights into real-world applications of classroom learning. Additionally, 20 representatives from companies, government agencies, and educational institutions attended and expressed

strong interest in the students' presentations (see Figure 5).



Figure 5 Regional Collaborative Practice Presentation Day

3) Increase in Interest in Local Contribution

The course has had a notable impact on students' attitudes toward their communities. There has been an increase in students aspiring to obtain the “Regional Revitalization Practitioner” certification, a title awarded to those who demonstrate a commitment to local problem-solving and contribution through hands-on activities. Figure 6 presents the results of a survey regarding the acquisition of this certification, conducted among fourth-year students enrolled in the Regional Collaboration Seminar. Responses were collected from 70 students, revealing that 5 students (7.1%) expressed a strong desire to obtain the certification, and 8 students (11.4%) indicated a positive intention to pursue it.

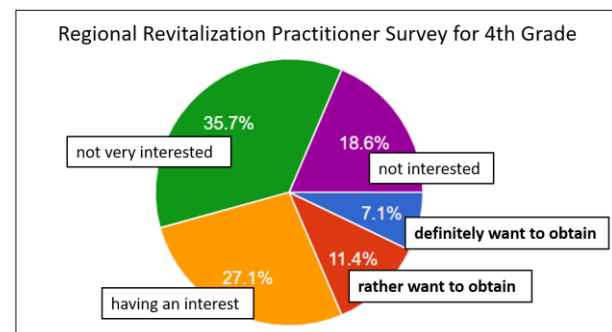


Figure 6 Regional Revitalization Practitioner Survey

4) Integration of Company Research Seminar in Kochi into Career Education

The 7th Company Research Seminar in Kochi was held on November 19, with a record-breaking

participation of 70 local companies. Starting this year, the seminar was officially recognized as part of the school's "career education" program and designated as a school-wide event. All 1st to 4th-Grade students participated (Total participants: 640) The event was redesigned to match students' career development stages, allowing each participant to envision their future through direct dialogue with representatives from regional companies (see Figure 7).

This initiative has significantly expanded opportunities for students to learn about local industries and strengthened ties between the school and the regional economy. By institutionalizing the seminar as part of career education, students are increasingly motivated to explore local career pathways and entrepreneurship.



Figure 7 The 7th Company Research Seminar in Kochi

5) Strengthening Partnerships with the Regional Collaboration Support Council

To strengthen ties with the Kochi KOSEN Regional Cooperation Association, a digital signage system was introduced. It displays information about participating local companies, their social initiatives, and their collaboration with students. 9 member companies actively participated in the program and were granted access to the school's digital signage system to promote their activities and opportunities to students (see Figure 8).



Figure 8 Installed Digital Signage system

As a result of these collaborative efforts, the number of member companies in the Regional Cooperation Council increased from 24 in FY2023 to 29 in FY2024, including 5 newly joined companies. This growth reflects the deepening relationship between the institution and local industries, as well as heightened interest in

contributing to educational programs aimed at regional revitalization.

This has:

- Encouraged donations and support from partner companies.
- Enhanced student awareness of local industry activities.
- Fostered long-term, mutually beneficial partnerships.

Discussion

This initiative has not only fostered student growth but also influenced faculty perspectives and community engagement. A multi-stakeholder collaboration framework has emerged—one in which schools, students, and regional actors jointly design and implement learning experiences. Moving forward, the challenge will be to institutionalize this framework and ensure its sustainability through ongoing dialogue with local stakeholders and flexible curricular design. Additionally, external support, including contributions from member companies of the Kochi KOSEN Regional Cooperation Association, has enabled us to introduce digital signage systems on campus. These systems promote local businesses and their collaboration with the college, thereby reinforcing the connection between students and the regional economy.

Conclusions

By offering students a progression of educational experiences—ranging from problem discovery to solution implementation—Kochi KOSEN has succeeded in promoting social implementation education that resonates with the needs of local society. The "All-Kochi" framework empowers students to engage deeply with real challenges, transforming them into motivated contributors to regional innovation. Future efforts will focus on strengthening the institutional foundation, expanding cross-sectoral collaboration, and enhancing the scalability of this model.

References

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