For rural revitalization, universities in Japan encourage students to nurture relationships with partner organizations in rural areas. Fieldwork studies are one of the prominent methods for rural revitalization. However, students in urban universities should less likely maintain such relationships in rural areas even if they undertake fieldwork studies. The present study illustrated how students and graduates had relationship with rural areas after the fieldwork studies. The author contacted with three professors in an urban university who implemented advanced fieldwork studies in five rural municipalities of Kinki region, Japan. The author asked the three professors about excellent graduates and students who had undertaken fieldwork studies, in total 16 individual. The author interviewed these students for their experiences and growth through the fieldwork studies. As a result, 11 of 16 interviewees lived and worked in urban areas. However, students from urban hometowns became interested in revitalizing rural areas through their jobs, whereas those from rural hometowns were motivated to return in the future. After fieldwork studies, students determined the strengths and weaknesses of rural areas compared with those of urban areas, which could contribute to future rural revitalization through their jobs. For rural revitalization in the future, collaboration between urban universities and rural areas are recommended.

Keywords: Fieldwork studies; active learning; depopulation and aging; youths’ career.
1. INTRODUCTION

Many universities, particularly those in developed countries, are currently in the stage of mass or universal education [1]. Students are no longer nurtured to be gentlemen or cultivated men but trained as human resources who could contribute to various industries. Graduates are entering a wide range of jobs, including general business, self-employment, teaching, and other professional careers, which require practical learning tailored to each type of industry. To produce excellent students and train them as empowered workers, universities establish strong relationships with industries [2,3]. The idea of Sustainable Development Goals (SDGs) is also expanding among universities. SDGs are universal goals that aim to promote inclusive societies, fight against inequality, and recognize the importance of cooperation and partnerships in pursuit of sustainable development with human development. Many universities utilize their resources in research, innovation, and education for SDGs [4].

In Japan, more than half of the young population are enrolled in higher education [5]. In addition to educating students to be active in the industry and have the mind of SDGs, universities bear the mission of rural revitalization; encourage young people to live and work in rural areas. Japan is experiencing rapid aging and depopulation. The principal reasons for depopulation and aging range from debt to the concentration of young people in a few mega-city areas, particularly Tokyo. The total fertility rate in Tokyo is the lowest among all municipalities in Japan. Many young people are concentrated in Tokyo and then could hardly reproduce their children [6]. If young people lived and worked in rural areas, then the total fertility rate in the entire country could improve. Moreover, new industries may emerge, and the Japanese society could follow sustainable development. Hence, the Japanese government is promoting rural revitalization. Universities in rural areas are expected to play principal roles in rural revitalization. Students are encouraged to engage in relationships with rural societies through governmental projects [7]. Many universities are adopting rural revitalization as a concrete form of social contribution [8]. Students and graduates are expected to be members of and to work and live in rural societies.

Most universities and students are concentrated in urban areas. Therefore, regardless of the abovementioned initiatives of universities, their numbers remain limited. As the enrollment rate in universities increase, many young people as a result are increasingly concentrated in urban areas [5]. Fig. 1. shows the total population and number of university students for each prefecture. Compared with the total population, university students are concentrated in Tokyo, Osaka, and Aichi prefectures, which are also known as the three megacities in Japan. In particular, Tokyo attracts more students from other prefectures, which exceeds more than that expected from its total population. For this reason, universities in urban areas are also expected to play their roles in rural revitalization. A number of urban universities cooperate with organization partners of rural areas for educating students. For example, students visit a depopulated area, which is far from their place of residence and with a significantly different living environment. These education programs are frequently regarded as fieldwork (FW) studies, which are expanding among many universities as a form of active learning. The present study pays attention to students and graduates in urban universities after FW in rural areas.

2. THEORETICAL BACKGROUND

McVeigh [9] criticized education in Japanese universities, because only a few students earnestly study at university. The university has become a place of leisure. Students are averse to showing off and presenting their work. They cheat, plagiarize, and are late or absent for classes without hesitation. They lack interest in world events. Moreover, they try to obtain grades only through attendance. The reason for the low level of motivation of learners in Japan is that companies do not emphasize grades but focus on their synchronicity with others when hiring graduates. After McVeigh’s study, universities in Japan undertook reformation in education. As the population of young generation decreased, universities are forced to reform to maintain a high number of students [10]. Students are required to gain skills for future employment, which is contrast with the past when the transition from school to work among university students was smooth [11].

Among several trials of educational reformation, active learning programs are encouraged to enable students to gain the fundamental competencies of professionals. Students learn in-depth from experience and acquire problem-solving and communication skills. Active learning
programs are expanding in developed and developing countries to train human resources. To encourage active learning among students, several methods are useful, such as debates, laboratory experiments, internship in hospitals or companies. These traditional methods facilitate active learning [12-15].

In FW, students engage in off-campus experience in collaboration with partner organizations such as local governments and companies or groups of residents [16]. Many FW programs aim to facilitate the discovery of issues hidden in certain areas and solve them with the aid of partner organizations. FW plays an important role for group work, because they encourage students to cooperate among themselves or with members of partner organizations to clarify and resolve these issues. After FW, students summarize their findings in the form of reports and presentations. They also offer solutions to problems in the form of social contribution activities such as volunteer work [17]. Nakayama and Matsumura [18] reported that students improved their fundamental competencies as professionals after experiencing FW in rural areas. Moreover, Kudo et al. [19] found that communicating with students from different countries and diverse disciplines who are working on the same theme promotes independence, cooperation, and in-depth understanding of their field of study. In addition, FW enables students to gain a sense of responsibility as members of the community. Many universities adopt FW, which successfully help students find jobs, live in communities, and achieve holistic development [20-22]. FW is one of the most useful education programs in which students engage in active learning.

FW is beneficial for the development not only of students but also of cooperative relationships between universities and partner organizations. Universities are currently expected to contribute to community development in local societies. Many universities are seeking to establish strong connections with local governments, companies, and groups of residents. FW is a promising method that enables social contribution through education [23]. Through FW, students are expected to contribute to community development in terms of depopulation and aging [24]. Universities are endeavoring to let graduates find jobs in partner organizations, which benefit not only students but also universities and partners to promote sustainable relationships through financial support [25]. Through experiences of FW in various areas, students likely gain skills and responsibilities as members of local communities.

3. MATERIALS AND METHODS

Hannan University is located in Matsubara city, which is adjacent to Osaka city, the center of one of the three megacities of Japan. The university was founded in 1965. In 2022, approximately 4,000 students were enrolled in the university.

The researcher contacted three Professors from three faculties in the university. They were the sources of potential interviewees as described below. The three professors implemented advanced FW in five rural municipalities, namely, Yabu, Kami, Katsuragi, Misaki, and Yoshino (arranged in order of population size). Fig. 2. presented the population density of Kinki region, which includes the five rural municipalities and Osaka city as of 2020. The population densities of the municipalities (people per km2) are 52.3 (Yabu), 43.6 (Kami), 105.3 (Katsuragi), 299.7 (Misaki), and 65.1 (Yoshino). In contrast, the population density of Osaka city is 12215.6, which is higher than those of the five rural municipalities. During FW, students visited the area by one-day trips or for a few nights. They experienced social surveys, volunteer to help with local events, and held presentations of their findings/products for partner organizations.

The five municipalities exhibit aging and depopulation. Fig. 3. illustrated the population pyramid of each municipality as of 2020. Young people aged approximately 20–30 years leave these municipalities to study or work in urban areas, such that their numbers are particularly small. Fig. 4. depicted the trend of the population decline of each municipality. Except for Misaki, the other four municipalities display trends of population decline since 1960. The population of Misaki also began to decline since 1980. These findings are in contrast with the total population of Japan, which increased until 2010. Currently, the total population of Japan is also declining. In this sense, rural municipalities have shown how the whole Japanese will experience change of society following population decline and aging.
Fig. 1. Number of university/college students (blank bars: left axes) and total population (gray region: right axes) in each prefecture

Fig. 2. Population density map of the municipalities in Kinki region

Fig. 3. Population pyramid for (a) Yabu, (b) Kami, (c) Katsuragi, (d) Misaki, and (e) Yoshino as of 2020. Blank and blank bars represent men and women, respectively.
The researcher asked the three professors about excellent graduates and students who were scheduled to graduate that year (fourth grade) who undertook FW. The researcher later interviewed these students. Notably, the graduates and students, which will be introduced later, are not typical examples of students who have experienced FW in the sense that they were regarded excellent through the education of the professors.

The researcher obtained appointments with nine graduates and seven students for a total of 16 respondents and conducted interviews online. The researcher asked about their hometown and present addresses (graduates) or future addresses after graduation (students). The objective of the interviews was to determine the type of FW they accomplished, how it led to their involvement with local communities, and their current and future goals.

The interviews lasted approximately 30 minutes per interviewee. The 16 interviewees explained their FW and visions through their jobs. In the FW studies, the students engaged in creating original products using local specialties (Yabu), volunteered to provide relief to trail runners deep in the mountains (Kami), proposed plans to revitalize local stores (Katsuragi and Misaki), and sold local goods at a university (Yoshino). A few of them also became voluntarily involved in other rural areas through solo trips, work holidays, and volunteer activities, among others, after undertaking FW.

The researcher used grounded theory. The researcher interviewed and collected data, which were then constructed and compared using the theoretical sampling method. A continuous back-and-forth movement was noted between empirical data and theory [26]. Grounded theory aims not to verify previously constructed hypotheses but to understand the internal workings of a social object and to identify intelligible social mechanisms that are elaborated in hypotheses. Grounded theory is widely used, particularly in quantitative social surveys, which are difficult to conduct due to sample bias and ethical problems [27].

4. RESULTS

Table 1. summarized the hometown and present/future addresses of the interviewees and groups them under urban or rural areas. In this study, urban areas refer to the three prefectures, namely, Tokyo, Aichi, and Osaka, or the three megacities. This paper regarded the 44 other municipalities in Japan as rural areas. Table 1. demonstrated that 11 of the 16 students are working or planning to work in urban areas. Accordingly, this study infers that FW rarely contributes to the settlement of young people in rural areas. However, although they live or work in urban areas, they frequently visit or want to live in rural areas in the future. Hereafter, the paper introduces the results of interviews with graduates and students. For convenience, the section is divided into two subsections by hometown (urban or rural).

4.1 Students from Urban Hometowns

Out of 16 interviewees, nine were from urban hometowns prior to their enrollment in the university. They did not experience rural lives before FW. Through experiences with FW in rural

![Fig. 4. Population of Japan and the five municipalities: Japan (blank bars: right axes), Yabu (dashed line: left axes), Kami (gray dotted line), Katsuragi (gray solid line), Misaki (black dotted line), and Yoshino (black solid line)](image-url)
areas, they gained good impression of rural areas.

**Table 1. Residence sites according to hometown and after graduation of the interviewees**

<table>
<thead>
<tr>
<th>After graduation</th>
<th>Urban</th>
<th>Rural</th>
<th>Total</th>
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<tr>
<td>Home town</td>
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<tr>
<td>Urban</td>
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<tr>
<td>Rural</td>
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<td>3</td>
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<td>Total</td>
<td>11</td>
<td>5</td>
<td>16</td>
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They experienced culture shocks in these FW studies in rural areas. For example, they could not use Internet access when they are deep in the mountainous areas nor find stores that are open until midnight. At first, these experiences were viewed as negative. However, they communicated closely with other students precisely due to the lack of Internet connection and places to play. Thus, their trust in one another deepened due to FW.

Many students explained that their communication and problem-finding skills improved through FW. They worked in teams and interacted with residents and organizations in these areas, which facilitated their growth. During FW, they greeted residents as they passed by on the road, which was a habit they did not experience in urban areas. These experiences also made them aware of the importance of communication and politeness. One graduate experienced FW in Yabu. He and other students conducted a social survey in the area and planned to increase the number of residents and tourists in the area. They collaborated with local companies to produce new food recipes using tomato grown in the area. The following excerpt depicts his experience:

> I realized that how we are gazed by residents. It is very important to be conscious of gazes by residents when we are in rural areas. I tried to behave like an adult. I consider this to be the most instructive experience of my life so far.

In FW, students conducted social surveys, identified problems, and offered solutions to these problems. Through the activities, they were expected to gain skills and techniques. They gained ideas on how to revitalize these areas and new insights that teachers may not have anticipated. For example, one graduate organized events at university festivals using local products in Yoshino. Through FW, she gained skills related to conducting social surveys, which were beneficial to her current job:

> I had the opportunity to talk to many different people in the community and learned that there are many different ways of thinking. I experienced that it is very enjoyable to understand their needs and solve them. Through this experience, I decided that I wanted to work in sales and decided to find employment in my current job.

The students visited the study areas apart from FW. A few of them voluntarily revisited to participate in local events or for personal reasons. One graduate, who experienced FW in Misaki, ventured to other rural areas to experience working holidays:

> I occasionally visited other rural areas other than Misaki for my own sake. Through the experiences, I could know different problems in rural areas. I could have made use of the experiences in my FW of Misaki and my current job.

Although they did not live and work in the rural areas for FW, a significant number occasionally visited and spent vacations there. One graduate undertook FW as a volunteer staff by supporting athletes of a trail-run program in Kami. Through the volunteer group, he became friends with a local entrepreneur. After graduation, the graduate visited the rural area occasionally. He helped the entrepreneur as a volunteer staff:

> In winter, I work part-time at a restaurant owned by an entrepreneur who helped me in the FW program. We are still good friends and went to visit him last vacation time. I often communicate with him through SNS across distance.

Students identified problems in rural areas related to aging and depopulation. Through their experiences of FW in rural areas, they gained their visions for rural revitalization through their careers. A few of them shared their ideas with the researcher for revitalizing rural areas through their jobs or entrepreneurships. These plans are possible, because the students lived in urban areas and were aware of certain advantages offered by rural areas in contrast with urban areas. One graduate visited Yabu and found he could start a business in rural areas through the
perspective of urban residents and international tourists.

The Japanese countryside has friendly people and should be attractive for foreigners to visit. After COVID-19 is settled, I would like to open a guesthouse in rural area and show international tourists how nice the rural area is!

Out of the nine interviewees from urban areas, two students were planning to work in rural areas. After experiencing FW in Kami, they experienced working holidays in a rural area in Hokkaido prefecture and engaged in rural revitalization activities. Currently, they plan to work as fellows of a community-reactivating cooperator squad (chiki-okoshi-kyorokutai) in the next year. One planned to operate a café shop in the area, whereas the other planned to become a professional singer who advertises the friend’s café shop through social networking sites. Both want to study abroad in the future:

We will work and live in a rural town next year. The people of the town have asked us to do what we want to do and get involved with the town. So, we are thinking of creating our own café and doing activities to promote ourselves through music. In the future, I would like to study abroad and learn about real cafes in order to improve my skills there.

4.2 Students from Rural Hometowns

Out of the 16 interviewees, seven are from rural hometowns. They admired urban lives prior to enrollment in the university. Many of them longed to live in urban areas and went on to higher education from rural areas. Prior to FW, they knew well in advance about the kind of life in rural areas, because they were from rural areas. For students who lived in the city since entering university, the FW program was an experience that enabled them to contrast their life in urban areas with their life in their rural hometown. Through experiences in FW, they found values in rural lives. As a result, they rediscovered the significance of living and working in rural areas.

One graduate experienced FW in Yoshino. He conducted social survey in the areas, exhibited local products in the university festival, and shared the value of local products. Through the activity, he found the value of rural areas:

When I was originally in Ehime, I had a longing for urban areas. That is why I came to Osaka in the age of university enrollment. I really enjoyed the experience of playing in the city. However, in my third year, I started to resume my former hobby of fishing. I also went bass fishing in the places I visited during FW. My study visits to the rural area helped me to rediscover my love of nature.

Although students were from rural areas, they scarcely knew about problems in rural areas related to aging and depopulation. Through FW, they found that they may be able to solve problems related to depopulation and aging through their jobs. One student, who visited Yoshino, found divides between Osaka and Yoshino. Although the residents move daily between the two areas for only an hour by train, the population decline of Yoshino is severe. He intended to work in a company in real estate:

Although we can visit Yoshino from Osaka only an hour by train, Yoshino experiences serious depopulation. It is strange! I plan to work in real estate, and I would like to contribute to rural revitalization such as relocating offices to rural areas.

Even if they knew the value of rural lives and their possible contribution to the area, they continue to live and work in urban areas. The reason is that they made good friends or jobs in urban areas. However, another reason is that it was too early for them to go back to their rural hometown. They want to improve their skills and networks before contributing to rural areas in the future. One student experienced FW in Katsuragi; she selected FW in Katsuragi for her study to obtain skills required for rural lives in her hometown:

I will work in Osaka as a caregiver after graduation. I will take the national certification. After growing in this way, I would like to return to my hometown in the future, rural area, and start a business combining nursing care and tourism to revitalize the local community. Currently, I think it is necessary to stay in Osaka for my own growth.

A few students work or plan to work soon in rural areas. They want to make utilize their experiences in FW, such as contributing to rural areas or expanding their potentials. One interviewee constructed a cycling map in
5. DISCUSSION

This study examined how students of an urban university grew up by experiencing FW in rural areas. Students communicated with residents, held presentations, and engaged in social contribution activities through FW. The researcher interviewed the students or graduates and focused on their career paths after graduation. The study found that the students and graduates did not live or work in the study area but in urban areas. However, they frequently visited the areas where they experienced FW or became interested in the issue of population decline in their rural hometowns or areas in Japan as a whole. A few of them planned to work in their rural hometowns or other areas. They attempted to solve the problems associated with aging and population decline and became aware of the need to solve problems in rural areas in general.

Previous studies demonstrate that the educational effects of FW include improved student satisfaction and grades after taking the course [20], students’ ability to secure an employment [23], sense of civic responsibility [28], and holistic development [29]. This study illustrated that students and graduates who experienced FW at urban universities perceive the problems of rural areas as a principle in their current work and life. FW in urban universities in rural areas are limited to a few days or even a few weeks at most. One may criticize that students should experience only superficial learning through such brief experiences, such that FW is not a true learning experience. Before their FW studies, professors or coordinators inform students about places to work and residents to negotiate with. Therefore, it was criticized that students could barely make their personal authentic discoveries [30]. However, students needed to learn in-depth from their experiences and identify issues that residents could not easily identify due to the brief duration. Certain students discovered their study theme and visit the study or other areas apart from the usual FW and increased their knowledge and techniques in learning in rural areas. Students found issues for further studies and resolution through their selected future professions and lives. The FW program became a catalyst for further studies independent from the education of universities.

FW has been expected to play a role in rural revitalization. The Japanese government has launched a series of projects in which universities in regional areas collaborate with local governments and companies to promote the understanding of students about their local communities and acquire the human resources required in the area [7]. Through FW, these projects aim not only to let students acquire knowledge about local communities but also to settle in the area as excellent human resources. Students are expected to be members of rural communities. However, experiencing FW at rural universities does not necessarily mean that students will settle in that area. Instead, students who actively engage in FW may move to other areas, mainly the Tokyo metropolitan area [31]. Alternatively, Horiuchi and Matsuzaka [32] conducted a panel survey on students of a rural university who experienced FW in the area and found that they were more likely to find employment not in the area but mainly in their rural home area. Hasezawa et al. [33] demonstrate that students who experienced local activities in rural universities were more likely to intend to contribute to the area in the future. Hence, FW does not function to constrain graduates inside a particular region. Instead, encouraging them to develop interests in rural areas in general is possible, even if it is not the study area. In contrast, the current study presents the effect of FW program of an urban university. Students were interested in the issue of aging and population decline based on their experiences. The students recognized the need to solve the problem from a global perspective in relation to Tokyo and other large cities or international tourists. By conducting FW in rural areas while studying at an urban university, students could gain an awareness of rural areas with aging and population decline in a globalized world or global countryside [34,35]. Establishing a system that enables students to be involved in the local community in a positive manner with a global perspective is necessary [22]. The regional projects that the Japanese government has aimed to promote targeted the encouragement of university graduates to go
Regardless of the attractiveness of a place, rural areas present few jobs for young people immediately after graduation. Even if they find jobs in rural areas, young people do not necessarily settle in these areas for long. Takeshita et al. reported that more than 30% of Japanese freshmen quit their jobs after graduation [36]. Working in urban areas, then acquiring skills, is initially rational for them. Studying and working abroad to gain skills, knowledge, and mentality for global activities are possible. Afterward, they may work in rural areas and utilize their developed skills and visions in rural areas. It is desirable for young people to work in urban areas for a few years and contribute to rural areas instead of being locked into a rural area for their first job.

Another notable aspect is the local impact of university FW education. FW resulted in host residents taking pride in their lives [37,38] and social business creation [39]. Although not included in this analysis, the interaction with students from cities may have exerted a certain impact on the people in the areas where the students visited. In many areas, not only universities but also high schools and in certain cases, elementary and junior high schools, have withdrawn. The fact that university students can walk around the community and interact with the residents, albeit on a limited basis, may have been a stimulus to the residents and served as advance training for when newcomers or related residents move into the area. The students who were accepted may not contribute directly to their community; however, they may grow to be individuals who enliven the rest of the region, especially the hometowns of students. Conversely, students who left their rural hometowns may return after experiencing FW in another rural area. Future research on the attitudes of residents toward the acceptance of students is also warranted from this perspective.

The present paper presents the preliminary result of the interviews of 16 students and graduates of an urban university in Japan. Therefore, future studies should conduct additional interviews with students and graduates in other universities in urban and rural areas with or without experience in FW. Only then can further conclusions be drawn about how FW contributes to rural revitalization as global countryside.

6. CONCLUSION

Currently, many developed countries face aging and depopulation, which are also increasing in developing countries [40-43]. Aging and depopulation are causing serious problems, such as loss of workers, paucity of pension, failure in infrastructure, and degradation of land and environment. The problems are serious, particularly in rural areas, where young people migrate due to high-waged jobs or higher education. Thus, increasing the human resources of industries required for aging and depopulation, such as nursing and community development, as well as other possible industries in rural areas, such as agriculture, education, manufacture, and tourism, is necessary [44,45]. To increase human resources in rural areas, collaboration between universities and local societies is required. Florida [46] demonstrates that increasing creative cities are possible if local universities could collaborate with local industries and communities. Even if with counterparts in distant locations of rural areas, universities may collaborate through the FW of students.

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COMPETING INTERESTS

Author has declared that no competing interests exist.

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