Abstract
This article reports the results of an online questionnaire completed by 545 third-year engineering students at Gifu University. The questionnaire was aimed at gaining a better understanding of how students chose their university and how that choice was or was not influenced by their future career plans. Teachers would like to believe that students choose to go to university in order to study for a degree that will lead them to a specific career, or help them to further themselves academically in a specific area of their choice. However, the results of this survey suggested that this was not the case for a majority of the respondents. This paper attempts to identify the different groups of factors that influenced the decision-making process of Gifu University students when they chose their university, their faculty, and their area of specialization.

Key words: decision-making tendency, student expectations, higher education

1. Introduction

When I worked as a high school teacher, my former colleagues and I were instructed to advise our students to apply for universities and courses on the basis of how likely they were to be accepted rather than on what they wanted to study. Indeed, sending students to “good” or higher-ranked universities is one of the job performance metrics for high school teachers, and it is also extremely important for the school’s reputation. Most parents expect their children to go to “at least” university, and in general, they prefer better-known or higher-ranked institutions. According to a survey by the Ministry of Education (2018), around 80% of parents who have children in the 6th grade of elementary school or the 3rd year of junior high school want their children to go to university. The main reasons given were that going to university is a good life experience (88.5%) and that it provides an opportunity for academic development (78.7%) (Higuchi, 2014). Since most students have neither the knowledge nor the decision-making skills to make these important choices, and also because most of them do not know exactly what they want to do after
they finish high school, they turn to their teachers for help and support when making decisions about their future. Going to university has almost become a natural step for many, and since 2008, the total has consistently been above 50% (MEXT, 2014). Unfortunately, decisions about tertiary education are not always made for what might be considered the “right” reasons. For example, in my time working at a high school, I saw many students who chose to go to university simply because that was what all their friends were doing.

The motivation for this study comes from my own experience of teaching English to third-year engineering students at Gifu University. Their attitude towards learning was generally passive, and they seemed to have no particular interest in the fields they were studying. I was interested to find out the reasons behind their choices, and I also wanted to know whether their attitude toward classes in their main area of study was similar to their attitude to English classes. In this paper, I will look at how and why the engineering students chose Gifu University, and find out whether there is any correlation between their decision-making regarding their choice of what to study and their plans for the future.

2. Literature review

An international student survey conducted by educational consultant Hobsons (2017) asked 62,366 students from 65 universities around the world to choose five important elements that they took into account when choosing a university. (Of these, 27,955 were considering studying in the UK.) The subjects were asked various questions about higher education including what factors were most likely to influence their decision-making process. The three factors rated as most important were a high-quality of teaching (30%), the availability of scholarships (29.9%), and the position of universities in international rankings (23.5%). The least important factor to the prospective students was the opportunity to make friends (10.3%). The researchers also asked the students to say why they wanted to go to university. The two main reasons were being passionate about the subjects they wanted to study (58.4%), and continuing their academic development (58.0%). Only about 9% of respondents stated that they wanted to go to university because everyone around them was going. From this survey, it appears that most international students elect to go to university for personal reasons rather than because of external influences.

Cappex.com, a free website that helps students with financial aid, scholarships, and student loans in the United States, carried out a similar survey with more than one million American students about how they chose their university (Strauss 2016). The top reason given was location, with most students preferring to go to a university that was close to their home. During the first year in high school, name recognition or college ranking seems to be the most important factor, but junior and senior students did not worry so much about a university’s reputation, focusing instead on more realistic considerations such as how likely they were to be accepted.
Benesse (2013) surveyed 2,027 first- and second-year Japanese university students to investigate the correlation between the reasons for university selection and their satisfaction at university. Traditionally in Japan, the most influential factors for choosing a university have been coined as: “安近短 (ankintan).” As the Chinese characters show, this means “safe,” “close,” and “brief.” In other words, students tend to choose universities where there is little or no danger of failing to get in, that are close to their homes (less than one hour of commute each way), and that have a short entrance exam period that finishes as early as possible. In addition to these three factors, popularity concentrates in faculties and courses where students can earn qualifications that are directly connected with future occupations.

Many of the respondents in this survey answered that their main concern was to get a stable job after graduation, and the number of students who choose a university to learn essential life skills, to develop academic knowledge and skills, or to study something that interests them appears to be decreasing. On the other hand, reasons unrelated to academic considerations are becoming more common. These include such responses as “because everybody around me goes to university,” “because my teacher and/or family recommended that I should go,” “because I do not want to work straight after high school,” and “for no particular reason.”

According to the international surveys above, the quality of teaching, the availability of scholarships, university rankings, and location are common reasons why students choose universities in other countries. However, more and more Japanese students seem to be choosing a university without any particular purpose, and many now seem to be focusing simply on which will be the easiest route for them to take.

Furuichi (1993) identified four categories of reasons why students go to university: “no purpose or influence from friends,” “entertainment (such as extracurricular activities),” “study-oriented,” and “employment-oriented (qualifications and jobs).” For students who do not have any particular reason for choosing a university or course, or for those who make choices that conflict with their internal motivations, Kobayashi (2000) coined the term 不本意入学者 (unwilling enrollment). He divided these students into five types: (the following Japanese terms were translated into English by the author.)

1) 第一志望不合格型: students who failed to get into their first-choice university

2) 合格優先型: students who chose the highest rank of university their exam results would allow

3) 就職優先型: students who gave priority to universities that offer a higher chance of getting a better job after they graduate regardless of their interest in the subject they study
4) 家庭の事情型: students who chose the university according to its location or based on the tuition fees

5) 学歴目的型: students who did not have any other choice because their parents made them go, or they could not get a job

3. Method: aim and procedure

To better understand student decision-making processes relating to university selection, I carried out an exploratory study of 545 third-year engineering major students at Gifu University. The survey was anonymous with no means to connect a response with a respondent. Oral and written permission was collected from the students at the beginning of the questionnaire, and the principles of informed consent were followed.

The questionnaire was all written in Japanese and consisted of a combination of multiple-choice closed and open-ended questions. The questions asked included whether this university and course were their first choices, and if they were not, what those first choices were. The questionnaire also asked about future plans after graduation. Data were collected over two semesters—spring and autumn—in 2016 from a convenience sample comprising students from nine different departments enrolled in a required third-year English course.

4. Results and discussion

Exam types and first choices

There are several ways to enter Japanese universities, but the most common is taking the national standardized “Center Test” followed by the individual university’s second-stage exams (Guest 2014). About 42% of the respondents (n=231) entered Gifu University via the zenki nyushi (first exam), and a similar number (42% n=232) via kouki nyushi (second exam). A total of 8.8% (n=48) transferred from the National Institute of Technology in Gifu (Gifu Kosen)\(^1\), and the rest were able to enter based on recommendations from their high schools. Students who take the zenki nyushi are generally able to go to their first-choice universities. The kouki nyushi, however, tend to be taken by those who failed the zenki nyushi, so the university they end up in will most likely be their second or third choice. In addition, even

\(^1\) It is an institution of higher education, and it provides a five-year education after junior high school. Students can take examinations for admission as a third-year transfer students to an undergraduate program of a university of their choice.
though 479 students out of 545 said they were aiming to study engineering, nearly 60% of them answered that studying at the Faculty of Engineering at Gifu University was their second choice, as many students originally wanted to go to either Nagoya University or Nagoya Institute of Technology.

**University selection**

Although almost the same number of students took the first and second exam, the reasons why they took those exams varied, which means that some students who took the *zenki nyushi* were not necessarily aiming for Gifu University as their first choice. Even though about 88% of them originally wanted to study engineering, nearly 36% answered that Gifu University was not their first choice. These students chose Gifu University on the basis of their Center Test results and the fact that they would be highly likely to get in. For students who took the second exam, 89.2% stated that Gifu University was not their first choice. Around 20% of those did not choose engineering as a first-choice major, either. The top three reasons why they chose the university were their exam results, the location, and a feeling that they did not have any other choice.

The factors that influenced students’ decisions when choosing the university can be divided into 10 categories:

a) Academic development – to continue their academic development  
b) Exam results – because they were most likely to be accepted according to their grades and exam results  
c) Future career – to acquire the knowledge and skills needed for future jobs and dreams  
d) Interests – because the university offers courses they are interested in  
e) Job opportunities – to improve their job prospects  
f) Location – because the university is close to their home  
g) No choice – because they failed their first-choice university and did not want to wait another year  
h) No reason – they did not have any particular reasons why they wanted to go to this university  
i) Recommendation – because the university was recommended by teachers, friends, or family  
j) Reputation – because the university is a national university and has a reasonably high ranking

Nearly 43% of the students (n=233) answered that they chose Gifu University because the university offers what they wanted to study (d). Although 40% of them took the first exam, 34% of those students answered that Gifu University was not their first choice. A total of 45% of the students who chose the university according to their area of interest took the *kouki nyushi*, and the majority of them also said Gifu University was not their first choice (92.3%). Areas that students wanted to study included “programming,” “information technology,” “robots,” and “concrete (civil engineering).” Some students even mentioned particular seminars or laboratories they wanted to join.
The second most popular reason why students chose Gifu University was because it was the one that appeared to be most likely to accept them based on their grades, their scores on standardized tests in high school, and the Center Test results (14.0%). For these students, their personal interests were not given priority. Additionally, half of those students originally hoped to go to different universities, particularly Nagoya University or Nagoya Institute of Technology, and 25% of them even wanted to study completely different subjects such as medicine, agricultural science, or English.

Around the same number of students chose the university for geographical reasons (f) and for better job opportunities after they graduated (e) (8.5% and 8.8% respectively). Many students answered “家から通えるから[I can commute from home],” and “岐阜大学が家から近い国立大学だから[Gifu University is the nearest national university].” Also, they valued the fact that the university has a
A total of 6.3% of the students chose the university for their future career (c), and the most popular jobs were “researchers” and “engineers.” Other than these, the students vaguely mentioned fields they want to work in such as “I want to work for a company related to machines and cars,” “I want create games,” and “I want to build buildings and bridges.

Slightly fewer students (6.1%) did not have any special reason (h), providing responses such as “なんとなく [for no special reason],” “気分で [just because I felt like it, just the way it is],” and “とりあえず [just for now or tentatively].” A further 5.3% of the subjects answered that they did not have any other choice (g) because they failed to get into their first-choice universities (“前期に落ちたから [I did not past the zenki exam],” “受かってしまったから [I luckily passed],” and “仕方なく [I did not have any other choice]) but did not want to work or wait another year to try again, or they just entered this university simply because they happened to pass the exam. This result is not surprising as according to Kanda (2013), many students tend to decide to go to university just because they do not want to work, or because they want to have four-year “holiday.”

The goal of academic development (a) did not seem to be influential for the most of the students, and half of those who gave this reason were transfers from Gifu Kosen. The factors that appeared to have the least amount of influence on these students were recommendations from others teachers, family, and friends (i) and the reputation of the university or its national ranking (j).

Only those who provided answers that could be categorized as (a), (c), or (d) chose Gifu University purely according to their academic interests and/or future career goals. Students who provided responses from the other categories accounted for 47.5% of the total, and these can be classified as “unwilling enrollment according to Kobayashi’s (Op. cit.) definition.

**Future plans**
The number of students intending to continue their studies in graduate school was 58.2%, and around 23% said that they want to work in fields related to what they are currently studying. A total of 9.4% were unsure of their plans after graduation. Some students (7%) stated specifically that they wanted to get a job unconnected with their area of study because: “自分に向いていないと思ったから [I realized the
major was not my thing]; “他に興味がるものを見つけたから [I found something more interesting]”; and “工学の分野にそこまで魅力を感じないから [I felt engineering is not very attractive].” A small number of students (n=4), said that they do not want to go to graduate school or look for a job (“進学も就職もしない”).

Among the students who want to continue their study, 45% would like to go to Gifu University graduate school, and 13.2% hope to go to different schools (around 70% of these originally enrolled in Gifu University as their second choice).

Common reasons why 51.4% of students wanted to study in Gifu University Graduate School were research-oriented such as “同じ研究室で続けて学びたいから [I will be able to continue what I am studying now under the same professor]” and “専門知識を深めたいから [I want to get more academic and specialized knowledge and skills].” About half of the students who wanted to study at different graduate schools said that either Gifu University does not offer courses in the area they want to study or that they have identified other universities with laboratories that they want to get into. Other major reasons were geographical: “環境を変えたいから, 岐阜から出たいから [I want to change the environment],” and “岐阜は家から遠いから [Gifu is a long way from home].” Some students also answered “第一志望校に行きたいから, 大学入試のリベンジがしたいから [I want to get in to my original first-choice university].”

**Graph 3. Reasons why students want to go to graduate school**
The top reason why students want to study in graduate school (either Gifu University or another institution) is to do research or study more about what they are learning (50.3%). A further 12.7% said they want a higher degree because it will look good on their CV. About the same percentage of students had no particular reason for wanting to enter a master’s program. Quarter of these students also chose Gifu University either according to their exam results, because they had no other choice, or for no particular reason. A further 9.5% of students wanted to go to graduate school because they did not want to work straight after university: “まだ就職したくないから [I do not want to work yet],” “また働くには早いから [I am not ready to work yet],” “まだ学生でいたいから [I still want to be a student],” and “まだ遊びたいから [I still want to “play”].” Finally, 8% of the students answered that they will need more knowledge and skills in order to get the job they want in the future. Some students (n=9) still did not know what they want to do in the future (“やりたいことが見つからっていないから [I still do not know what I really want to do in the future],” and “自分の本当にやりたいことを見つけるため [I plan to figure out what I want to do in the future while I am in grad school]”), and the same number of students each (n=4) wanted to go to graduate school because their friends are all going, because that will be the easiest option to avoid having to think seriously about their future, or because they want to go to their original first-choice university.

6. Limitations

The respondents to this survey were third-year students, so their memory of the decision-making process for entering Gifu University was not very clear; some of the subjects said that they were not sure what they felt or thought when they were in high school, so it would be better to conduct a questionnaire with first-year students in the future. If possible, it would also be interesting to compare responses between students of different ages to examine how their feelings change over the course of their university career.

Some responses were ambiguous or even contradictory. For example, some students answered that they chose the university according to their interest in the subject but also said that neither the university nor the course were their first choices. In future research, therefore, follow-up interviews will be needed in order to produce reliable data. It would also be interesting to investigate the relationship between what
students expected when they chose their university and their level of satisfaction with their actual school life once they enter it.

7. Conclusion

Since engineering majors who want to become engineers and researchers will require specialized knowledge and skills for the future, it seems reasonable to expect that those same students will have had clear reasons for choosing their university and major. In this survey, I wanted to explore the factors that influenced the decision-making process of my students, and also the ways in which those reasons reflected their future plans. While academic reasons such as quality of teaching and scholarship availability are the most commonly cited by students in foreign countries when choosing a university, this survey confirmed the trend of more and more Japanese students choosing their university without any particular reason (Benesse, 2013).

The results of this survey showed that 42.8% of the respondents chose the university according to their interests, and about 48% of them can be categorized as unwilling enrollments. The main reasons why those unwilling enrollments chose the university were their exam results, its location, and its reputation. This category also includes students who had no choice because they did not want to wait another year and those who chose Gifu University simply because it was the closest national university to their home.

A popular Japanese business magazine, President, recently revealed six qualities that companies and employers require in university graduates: vitality, empathy, communication skills, leadership, autonomy, and a global outlook (2015). It is noteworthy that specialist knowledge and academic performance are not included in this list. This means that the expectations and needs of society and students’ attitude towards selecting a university appear to be well matched. In other words, employers seem only to place importance on which university a student graduated from.

According to another survey of university students’ attitudes to learning and school life (Benesse, 2012), 40% of first-year students stated that they would like to leave their current university and enroll in another, and 17% said they would like to drop out and change their career. The lower the ranking of a university gets, the higher these rates tend to become (Higuchi, 2013). Kamibayashi (2013) noted that students who drop out of universities tend to be those who are categorized as unwilling enrollments. It is therefore logical to conclude that if universities can avoid unwilling enrollments as much as possible, they can reduce the number of students who want to leave.

In order to reduce the number of students who come to university for the “wrong” reasons and those who are “unwillingly enrolled,” universities need to make their education interesting and attractive for prospective students. They also need to increase the level of communication with high schools so that prospective students can have a better understanding of their options. Two ways to do this might be by
creating opportunities for high school students to talk informally with university students, and by giving high school students a chance to attend university lectures. This would arguably lead to an improvement in the quality of classes because of the extra pressure felt by the teachers, and it would also increase the level of student autonomy, because students would feel more control over their education if they were studying something that they actually wanted to learn.

Bibliography


高等教育と卒業後の進路に対する学生の期待と認識

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要旨
本研究は、学生がどのように大学を選び、卒業後の進路をどのように考えているかを探ることを目的としている。研究は、岐阜大学工学部に所属する3年生、545人を対象に行った質問紙で行われた。将来の職業に関連する学問の探索や志望の専門分野を極めることを重視して大学を志望するものであると信じていたが、この調査では被験者の大多数がそうでないことが判明した。興味により選択した学生は4分の1にも満たず、約半数を試験結果、立地、大学の知名度などで理由にする「不本意入学者」（Kobayashi, 2000）であると分類することができた。大学、学部、専門を選ぶ際の意思決定の過程に影響する要素を特定し、それがどのように卒業後の進路決定に作用するかを考察した。

キーワード：意思決定、学生の期待、高等教育