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Effects and Limitations of University Information Disclosure: A Study on the Impact on University Choice

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Abstract

This study aims to find an effective way of career-path selection for high school students by clarifying the impact of such educational information on the university choices of prospective students. In this study, we conducted a questionnaire survey targeting university students to examine whether the information required to be disclosed by universities was perceived at the time of university selection and to what extent this information was helpful in making their university choices. Results showed that the perception of university educational information was overall low, but for the information that was perceived, it was generally shown to help make career choices. Besides, differences in respondents' attributes such as post-graduation career aspirations, academic fields at the university, and entrance exam formats also showed variations in perception and usefulness. These results imply the value of the information provided for choosing the college and the major academic field in relation to the future career path.

Keywords: international recognition of qualifications, publication of educational information, career path selections, management of teaching and learning, academic fields, career paths after college education, career education

1 Introduction

In its report, *Grand Design for Higher Education toward 2040*, the Central Council for Education pointed out a need to enhance visualization and disclosure of information regarding educational achievements and the quality of university education in Japanese universities [1]. Furthermore, based on this report, in its report, *Guidelines for Management of Teaching and Learning*, the Special Committee on Management of Teaching and Learning noted expectations for voluntary and autonomous information disclosure by each university under their independent judgment and responsibility, citing instances where "insufficient information provision before enrollment has led to student disappointment in some universities" [2]. In Appendix 3 of *Guidelines for Management of Teaching and Learning*, examples of 26 types of information are listed (see Table 1 for the details), which are considered significant to disclose as information related to academic achievements, educational outcomes, and conditions ensuring these outcomes at universities.

It has been shown that the decision factors in choosing a university are influenced by the attributes of the respondents. In Portugal, for example, a survey of 1641 first-time enrollees at a Portuguese university revealed that the university website is one of the top three information sources for most respondents and that geographical proximity is the most important factor in choosing a higher education institution [3]. Other examples include a survey of first-time

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enrollees at a state university in North Cyprus, which found that university websites were the most frequently referred information sources, while job and scholarship opportunities were the top concerns for international students [4]. In Japan, in a survey conducted in March 2024 among 2479 Japanese high school students, the most important factor in choosing a desired university was "the content that can be learned" (51.6%), followed by "the qualifications that can be obtained" (48.5%) [5].

Previous research has revealed the impact of information regarding the post-graduation career paths of graduates disclosed by universities on prospective students' university choices [6]. We selected information related to post-graduation career paths from among the 26 examples listed in *Guidelines for Management of Teaching and Learning*. We then surveyed university students to examine to what extent this information was important in their university selection process. The results indicated that this information was important in university choice. Furthermore, variations in the importance of information were observed depending on the academic fields students intended to major in at university. However, that study did not examine whether the information was perceived during university selection. Additionally, factors such as post-graduation career aspirations and the form of university entrance exams, besides the academic field of the university, could influence the perception and utilization of information, but their effects were not examined.

Therefore, in this study, in order to clarify the impact of such information on the university choices by prospective students, we conducted a questionnaire survey targeting university students to examine whether the information required to be disclosed by universities was perceived at the time of university selection and to what extent this information was helpful in making their university choices.

2 Method

2.1 Participants

In the questionnaire survey that was carried out from 15th to 21st March 2024, 1000 undergraduate students (492 male, 500 female, 8 N/A) registered with Cross Marketing Inc. participated. Their ages ranged from 18 to 26. Informed consent was obtained from all participants.

2.2 Composition of the questionnaire

The questionnaire was divided into parts for screening respondents' attributes and the main survey. Regarding respondents' attributes, information such as gender, age, residential area, occupation, type of high school graduated from, location of high school graduated from, location of current university, desired post-graduate path at the time of university selection, specialized field of study at university, types of university entrance exams experienced, and professional qualifications acquired after university admission were requested. In the main survey questionnaire items, respondents were asked if they perceived 26 types of information regarding educational outcomes and conditions for ensuring these outcomes in *Guidelines for Management of Teaching and Learning* shown in Table 1, and if they perceived them at the time of their university selection. If they responded affirmatively, they were asked to rate how helpful this information was in their university selection on a scale from 1 (not helpful at all) to 4 (extremely helpful).

Additionally, besides the 26 types of information, respondents were asked to provide information about other factors that were helpful in their university selection process, as well as about individuals they consulted with and sources of information they used during their university selection process.

The following tables show the frequency of responses for each of the 26 types of information. We examined the impact of respondents' attributes, information such as desired post-graduate path at the time of university selection, specialized field of study at university, and types of university entrance exams experienced as factors on the perception of each of the 26 types of information using a Chi-square test for independence applying R software (version 4. 4. 0) [7]. Multiple comparisons were performed using the Bonferroni method. Additionally, we provided descriptive statistics for responses related to information other than the 26 types of information such as were asked to provide information about different factors that were helpful in their university selection process, as well as about individuals they consulted with and sources of information they used during their university selection process.

3 Results and Discussion

3.1 Helpfulness of University Information by 26 Categories

Table 1 shows the number of responses regarding whether the information was perceived. The results indicated that out of the 26 types of information recommended disclosure items, there was a tendency for respondents to be perceived of two items such as post-graduation situations such as career decisions and conditions of admissions selection that had been disclosed, while most of the information was largely didn’t perceived to them.

In Table 2, regarding the helpfulness when perceived, positive responses of "somewhat useful" to "extremely useful" totaled 50% to 70%, indicating generally helpful information.

These results indicate that prospective students show interest in some specific input and output information, such as entrance exam-related and post-graduation career information, but lack perception of many other input, throughput, and output educational information. This suggests the need for improvement in university information dissemination methods.

Table 1: Number of responses regarding whether the information was perceived.

	Educational information	Perceived	Didn't perceive
1	Achievement status of goals in each course subject	494	506
2	Degree attainment status	505	495
3	Students' perception of growth and satisfaction	473	527
4	Post-graduation situations such as career decisions	637	363
5	Percentage of students graduating within the prescribed period, retention rate, and dropout rate	320	680
6	Study hours	380	620

7	Achievement status of goals in courses directly assessing specific qualities and abilities as outlined in the "Diploma Policy"	430	570
8	Level of graduation thesis or research	356	644
9	Results of assessment tests	295	705
10	Scores of external examinations such as language proficiency tests	298	702
11	Status of qualification acquisition	436	564
12	Status of awards, honors, etc.	337	663
13	Evaluation of graduates by employers or academic advisors of graduates	349	651
14	Evaluation from graduates	391	609
15	Conditions of admissions selection	561	439
16	Student staff ratio	312	688
17	Status of flexibility in academic calendar	297	703
18	A mechanism that stipulates the upper limit on the number of course credits	355	645
19	Methods, content, and course plans as described in the syllabus	468	532
20	Situation regarding early graduation or enrollment in graduate school	271	729
21	Implementation status of Faculty Development (FD) and Staff Development (SD)	173	827
22	Utilization status of GPA	381	619
23	Utilization status of curriculum maps, curriculum trees, etc.	352	648
24	Implementation status of numbering	214	786
25	Status of faculty performance evaluation	250	750
26	Status of institutional research for enrollment management	190	810

Table 2: Number of responses and ratio regarding the helpfulness of perceived information.

	Educational information	Not helpful at all	Not very helpful	Somewhat helpful	Extremely helpful
1	Achievement status of goals in each course subject	33 6.7%	118 23.9%	273 55.3%	70 14.2%
2	Degree attainment status	35 6.9%	136 26.9%	255 50.5%	79 15.6%
3	Students' perception of growth and satisfaction	30 6.3%	115 24.3%	240 50.7%	88 18.6%
4	Post-graduation situations such as career decisions	30 4.7%	108 17.0%	344 54.0%	155 24.3%

5	Percentage of students graduating within the prescribed period, retention rate, and dropout rate	24 7.5%	83 25.9%	149 46.6%	64 20.0%
6	Study hours	29 7.6%	98 25.8%	190 50.0%	63 16.6%
7	Achievement status of goals in courses directly assessing specific qualities and abilities as outlined in the "DP"	25 5.8%	117 27.2%	221 51.4%	67 15.6%
8	Level of graduation thesis or research	26 7.3%	96 27.0%	180 50.6%	54 15.2%
9	Results of assessment tests	22 7.5%	86 29.2%	145 49.2%	42 14.2%
10	Scores of external examinations such as language proficiency tests	26 8.7%	73 24.5%	148 49.7%	51 17.1%
11	Status of qualification acquisition	34 7.8%	102 23.4%	208 47.7%	92 21.1%
12	Status of awards, honors, etc.	34 10.1%	114 33.8%	141 41.8%	48 14.2%
13	Evaluation of graduates by employers or academic advisors of graduates	28 8.0%	98 28.1%	171 49.0%	52 14.9%
14	Evaluation from graduates	22 5.6%	83 21.2%	206 52.7%	80 20.5%
15	Conditions of admissions selection	36 6.4%	97 17.3%	266 47.4%	162 28.9%
16	Student staff ratio	29 9.3%	78 25.0%	147 47.1%	58 18.6%
17	Status of flexibility in academic calendar	19 6.4%	82 27.6%	156 52.5%	40 13.5%
18	A mechanism that stipulates the upper limit on the number of course credits	26 7.3%	96 27.0%	177 49.9%	56 15.8%
19	Methods, content, and course plans as described in the syllabus	39 8.3%	105 22.4%	223 47.6%	101 21.6%
20	Situation regarding early graduation or enrollment in graduate school	25 9.2%	81 29.9%	128 47.2%	37 13.7%
21	Implementation status of Faculty Development (FD) and Staff Development (SD)	16 9.2%	46 26.6%	91 52.6%	20 11.6%
22	Utilization status of GPA	41 10.8%	89 23.4%	190 49.9%	61 16.0%
23	Utilization status of curriculum maps, curriculum trees, etc.	32 9.1%	88 25.0%	172 48.9%	60 17.0%
24	Implementation status of numbering	20 9.3%	65 30.4%	93 43.5%	36 16.8%
25	Status of faculty performance evaluation	26 10.4%	64 25.6%	126 50.4%	34 13.6%
26	Status of institutional research for enrollment management	19 10.0%	56 29.5%	89 46.8%	26 13.7%

3.2 Differences in response trends based on post-graduation career aspirations at the time of university selection

The options for responses to questions about post-graduation career aspirations at the time of university selection were as follows: aspiring for employment after graduation, aspiring for further education such as graduate school after graduation, no clear aspirations in particular, and others. Responses categorized as "others" were excluded from the Chi-square test for independence analysis due to their small number. The analysis results are shown in the table, indicating only the information for which there was a significant difference.

The group that reported having no clear aspirations answered that they perceived most of the information. On the other hand, students aspiring for employment stated that they perceived information related to both throughput and input to some extent. Additionally, students aspiring to graduate school reported being particularly perceived in the information regarding early graduation or enrollment in graduate school.

Table 3: Number of responses regarding whether the information was perceived by respondents' attributes of post-graduation career aspirations.

	Educational information		Perceived	Didn't perceive	χ^2
1	Achievement status of goals in each course subject	aspiring for employment	356 (2.71**)	325 (-2.71**)	17.15 *
		aspiring for graduate school	78 (0.79)	71 (-0.79)	
		no clear aspirations	58 (-4.14*)	109 (4.14*)	
2	Degree attainment status	aspiring for employment	365 (2.92*)	316 (2.92*)	23.07 *
		aspiring for graduate school	82 (1.21)	67 (-1.21)	
		no clear aspirations	56 (-4.79*)	111 (4.79*)	
3	Students' perception of growth and satisfaction	aspiring for employment	337 (2.083**)	344 (-2.083**)	15.53 *
		aspiring for graduate school	78 (1.35)	71 (-1.35)	
		no clear aspirations	56 (-3.89*)	111 (3.89*)	
4	Post-graduation situations such as career decisions	aspiring for employment	452 (2.59**)	229 (-2.59**)	15.56 *
		aspiring for graduate school	99 (0.76)	50 (-0.76)	
		no clear aspirations	84 (-3.94*)	83 (3.94*)	
6	Study hours	aspiring for employment	266 (1.10)	415 (-1.10)	9.22 **
		aspiring for graduate school	65 (1.56)	84 (-1.56)	
		no clear aspirations	47 (-2.85*)	120 (2.85*)	
7	Achievement status of goals in courses directly assessing specific qualities and abilities as outlined in the "Diploma Policy"	aspiring for employment	311 (2.66**)	370 (-2.66**)	11.57 **
		aspiring for graduate school	64 (0.03)	85 (-0.03)	
		no clear aspirations	52 (-3.35*)	115 (3.35*)	
10		aspiring for employment	206 (0.47)	475 (-0.47)	7.69

	Scores of external examinations such as language proficiency tests	aspiring for graduate school	54 (1.87)	95 (-1.87)	***
		no clear aspirations	37 (-2.36**)	130 (2.36**)	
11	Status of qualification acquisition	aspiring for employment	328 (4.43*)	353 (-4.43*)	21.16 *
		aspiring for graduate school	55 (-1.74)	94 (1.74)	
		no clear aspirations	50 (-3.85*)	117 (3.85*)	
14	Evaluation from graduates	aspiring for employment	277 (1.58)	404 (-1.58)	6.06 ***
		aspiring for graduate school	61 (0.52)	88 (-0.52)	
		no clear aspirations	51 (-2.46**)	116 (2.46**)	
15	Conditions of admissions selection	aspiring for employment	394 (1.58)	287 (-1.58)	9.58 **
		aspiring for graduate school	90 (1.13)	59 (1.13)	
		no clear aspirations	76 (-3.04*)	91 (3.04*)	
16	Student staff ratio	aspiring for employment	223 (1.55)	458 (-1.55)	8.94 ***
		aspiring for graduate school	52 (1.06)	97 (-1.06)	
		no clear aspirations	36 (-2.95*)	131 (2.95*)	
17	Status of flexibility in academic calendar	aspiring for employment	205 (0.52)	476 (-0.52)	7.07 ***
		aspiring for graduate school	53 (1.74)	96 (-1.74)	
		no clear aspirations	37 (-2.31**)	130 (2.31**)	
18	A mechanism that stipulates the upper limit on the number of course credits	aspiring for employment	253 (1.69)	428 (-1.69)	15.1 **
		aspiring for graduate school	62 (1.71)	87 (-1.71)	
		no clear aspirations	38 (-3.75*)	129 (3.75*)	
19	Methods, content, and course plans as described in the syllabus	aspiring for employment	333 (2.01**)	348 (-2.01**)	19.27 *
		aspiring for graduate school	80 (1.84)	69 (-1.84)	
		no clear aspirations	53 (-4.26*)	114 (4.26*)	
20	Situation regarding early graduation or enrollment in graduate school	aspiring for employment	183 (-0.11)	498 (0.11)	10.00 **
		aspiring for graduate school	53 (2.56**)	96 (-2.56**)	
		no clear aspirations	33 (-2.30**)	134 (2.30**)	
22	Utilization status of GPA	aspiring for employment	267 (1.14)	414 (-1.14)	8.05 ***
		aspiring for graduate school	64 (1.35)	85 (-1.35)	
		no clear aspirations	48 (-2.71**)	119 (2.71**)	
24	Implementation status of numbering	aspiring for employment	160 (2.65**)	521 (-2.65**)	10.68 **
		aspiring for graduate school	31 (-0.12)	118 (0.12)	
		no clear aspirations	20 (-3.19*)	147 (3.19*)	
26	Status of institutional research for enrollment management	aspiring for employment	145 (2.89*)	536 (-2.89*)	10.18 **
		aspiring for graduate school	25 (-0.70)	124 (0.70)	
		no clear aspirations	18 (-2.92*)	149 (2.92*)	

Note: figures in () indicate adjusted standardized residuals. *p <.001, **p <.01, ***p <.05

3.3 Differences in response trends based on academic fields at the university

The options for responses to questions about academic fields at the university were as follows: Humanities, Social Sciences, Science, Engineering, Agriculture, Merchant marine sciences, Health Sciences, Home Economics, Education, Art, and Others. Responses categorized as "Merchant marine sciences" were excluded from the Chi-square test for independence analysis due to their small number. The analysis results are shown in Table 4, indicating only the information for which there was a significant difference.

Regarding the level of graduation thesis or research, a higher perception was shown in the field of humanities, while fewer students showed such perception in the field of social sciences. Regarding the status of qualification acquisition, students in the fields of health sciences and others had a higher perception, while sciences, engineering, and art students showed less perception on it. Regarding the conditions of admissions selection, others had a higher perception, while social sciences had fewer responses indicating such perception.

Table 4: Number of responses regarding whether the information was perceived by respondents' attributes of academic fields at the university.

Educational information			Perceived	Didn't perceive	$\chi 2$
8	Level of graduation thesis or research	Humanities	81 (2.99**)	98 (-2.98**)	20.36 ***
		Social Sciences	94 (-2.17***)	213 (2.17***)	
		Science	17 (-0.64)	37 (0.64)	
		Engineering	45 (-0.85)	94 (0.85)	
		Agriculture	16 (0.99)	21 (-0.99)	
		Health Sciences	40 (-1.29)	91 (1.29)	
		Home Economics	12 (1.31)	13 (-1.31)	
		Education	25 (1.13)	34 (-1.13)	
		Art	11 (-0.98)	28 (0.98)	
		Others	14 (1.62)	14 (-1.62)	
11	Status of qualification acquisition	Humanities	79 (0.16)	100 (-0.16)	39.48 *
		Social Sciences	129 (-0.67)	178 (0.67)	
		Science	16 (-2.13***)	38 (2.13***)	
		Engineering	46 (-2.69**)	93 (2.69**)	
		Agriculture	15 (-0.38)	22 (0.38)	
		Health Sciences	77 (3.76*)	54 (-3.76*)	
		Home Economics	15 (1.68)	10 (-1.68)	
		Education	31 (1.43)	28 (1.43)	
		Art	9 (-2.63**)	30 (2.63**)	
		Others	18 (2.24***)	10 (-2.24***)	
15	Conditions of admissions selection	Humanities	110 (1.56***)	69 (-1.56***)	17.08 ***
		Social Sciences	156(-2.29)	151 (2.29)	
		Science	25 (-1.51)	29 (1.51)	
		Engineering	79 (0.16)	60 (-0.16)	
		Agriculture	24 (1.08)	13 (-1.08)	
		Health Sciences	78 (0.82)	53 (-0.82)	
		Home Economics	14 (-0.02)	11 (0.02)	
		Education	37 (1.04)	22 (-1.04)	
		Art	17 (-1.62)	22 (-1.62)	
		Others	21 (2.03***)	7 (-2.03***)	

Note: figures in () indicate adjusted standardized residuals. *p <.001, **p <.01, ***p <.05

3.4 Differences in response trends based on entrance exam formats

From questions regarding the type of entrance examination, respondents were divided into two groups: those who had experienced only general entrance examinations and those who had experienced recommendation examinations. The analysis results are shown in Table 5, indicating only the information for which there was a significant difference.

The group that experienced general entrance examinations answered that they were particularly perceived of the situation regarding admission selection. In contrast, the group that experienced recommendation examinations answered that they were not perceived of it. Additionally, the group that experienced general entrance examinations responded that they were perceived of the situation regarding early graduation and admission to graduate schools, whereas the group that experienced recommendation examinations answered that they were not perceived of it.

Table 5: Number of responses regarding whether the information was perceived by respondents' attributes of entrance exam formats.

Educational information			Perceived	Didn't perceive	χ^2
15	Conditions of admissions selection	Recommendation exam.	309 (2.70**)	204 (-2.70**)	7.31**
		General entrance exam.	252 (-2.70**)	235 (2.70**)	
20	Situation regarding early graduation or enrollment in graduate school	Recommendation exam.	154 (2.13***)	359 (-2.13***)	4.54 ***
		General entrance exam.	117 (-2.13***)	370 (2.13***)	

Note: figures in () indicate adjusted standardized residuals. *p <.001, **p <.01, ***p <.05

3.5 Responses to other questions: information that was helpful other than the 26 types, advisers for university selection, sources of information for university selection

Figure 1 shows the tendency of all the educational information that was helpful in university selection, excluding the 26 information items. The most helpful information was the standard score of faculties/departments, followed by the curriculum of faculties/departments and facilities and environment of the university campus in that order. The helpfulness of each other information was below 30%.

As for the advisors for career choices, Parents/guardians were overwhelmingly the most common (72.9%), followed by High school teachers (49.9%). Other advisors were each below 30% (Figure 2).

Figure 3 shows the tendency of sources of information for university selection. The most commonly used sources of information were university websites, followed by open campus and school information sessions and consultations. Other sources were each below 30%.

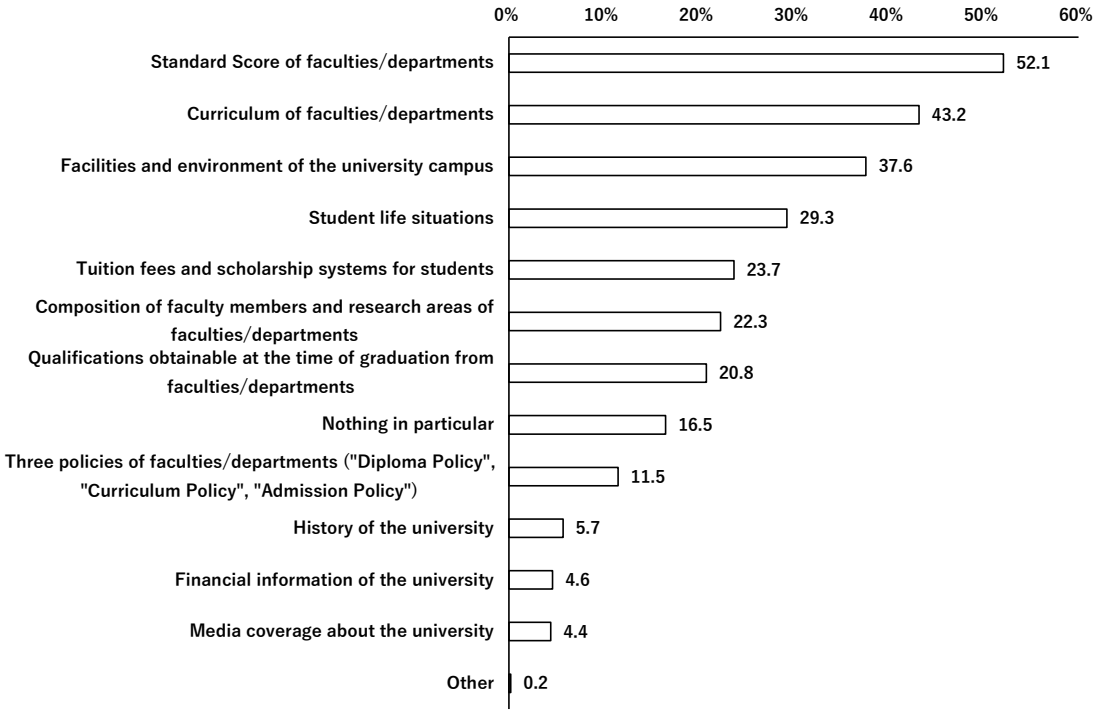

Figure 1: Information that was helpful other than the 26 types of information

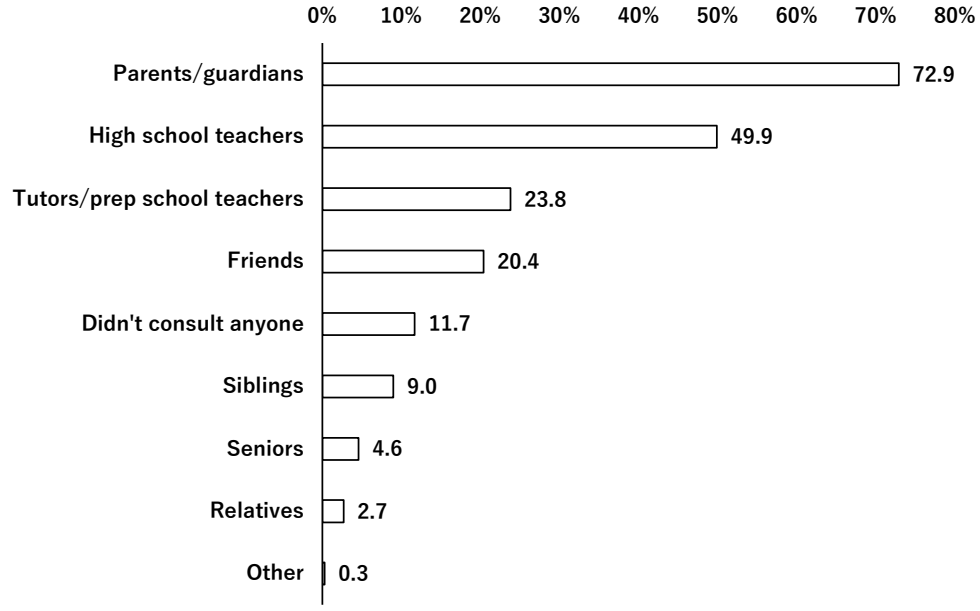

Figure 2: Advisers for university selection

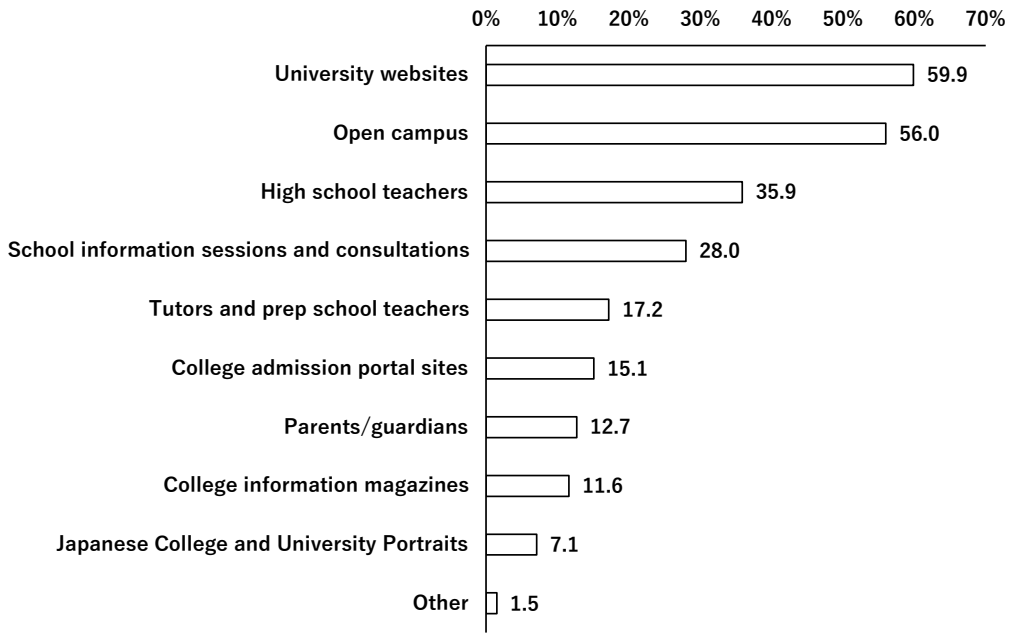

Figure 3: Sources of information for university selection

4 Conclusion

This study involved a questionnaire survey aimed at university students to investigate whether the information universities are required to disclose was perceived during the university selection process and how helpful this information was in influencing their university choices. The findings revealed that the overall perception of university educational information was low, but the information that was perceived tended to be beneficial in guiding career decisions. Additionally, variations in perception and helpfulness were observed based on respondents' characteristics, such as post-graduation career aspirations, academic fields of study at the university, and the format of entrance exams. These findings suggest that while prospective students demonstrate interest in certain input and output information, such as details related to entrance exams and post-graduation career prospects, they lack awareness of numerous other aspects of input, throughput, and output educational information.

These results suggest the need for universities to make greater efforts to communicate their information in a more understandable manner. Additionally, they imply the necessity of implementing career education at the pre-university stage to enable prospective university students to interpret this information accurately.

In addition to the expected progress in educational information disclosure due to the influence of report of *Grand Design for Higher Education toward 2040* and *Guidelines for Management of Teaching and Learning*, the temporary restrictions on face-to-face information sessions such as open campuses due to the impact of the COVID-19 pandemic may have accelerated the

dissemination of information by higher education institutions through the internet. Therefore, further investigation is warranted in the future.

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