Study of the conditions and the measures of rational consideration to students in the university

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ABSTRACT

In recent years, due to the enforcement of the discrimination method for disabled discrimination (2016/4), reasonable consideration is required for handicapped people of Japanese universities. However, at present, many colleges, especially science universities like Kyoto Institute of Technology (KIT), are not being promoted rational consideration such as maintenance. In addition, foreign students who are on an increasing trend in recent years are also required to establish their acceptance system and school support system. Therefore, this research aimed at universities that are easy for all people to use, based on the subject of our research, we conducted research on the ease of use of KIT, mainly for disabled students and foreign students.

Keywords: Universal Design, Heuristics, Human-Centered Design, Ergonomics

1. Introduction

In recent years, due to the enforcement of the discrimination method for disabled discrimination (2016/4), reasonable consideration is required for handicapped people of Japanese universities. However, at present, many colleges, especially science universities like KIT, are not being promoted rational consideration such as maintenance. In addition, foreign students who are on an increasing trend in recent years are also required to establish their acceptance system and school support system. Therefore, this research aimed at universities that are easy for all people to use, based on the subject of our research, we conducted research on the ease of use of KIT, mainly for disabled students and foreign students.

2. Method

Based on a human-centered design/ergonomics method, we proposed and verified guidelines.

3. Survey 1

3.1 Survey summary

In survey 1, we conducted a comparative survey on the
correspondence and countermeasures between handicapped and international students from the perspective of universal design that "as many people as possible are available" to four universities including the university (2016/12).

3.2 Survey result

Comparing the total score, KIT was about 2.5 times lower than the total score of other universities (Table 1: prepared by the author). In other universities, the support system by the student supporter system etc. was enriched, but it can be considered that the fact that there was no such system at KIT can be considered as the cause of the low evaluation. In particular, it is note take and PC take that urgently need to be addressed, and we assume that users who should consider auditory functions and who wish to support this support will not increase unless this consideration is made (2016/4: Only one person was hearing handicapped at KIT).

4. Survey 2

4.1 Survey summary

In order to solve the problem of note taking and PC take, which would be difficult for universities like KIT, we conducted a survey on students of note takers at other universities (Subject: Note-taker students over one year and under two years/3 people).

4.2 Survey result

Regarding experiments, practical training, design exercises, and English classes in specialized fields, it was the opinion that all subjects experienced difficulty in taking notes. Since there are many classes in specialized fields at KIT, it was the result of establishing this system and creating an environment in which professors and surrounding students can recognize.

5. Survey 3

5.1 Survey summary

In order to find problems unique to KIT and to investigate solutions, we conducted a field survey on campus using the UD evaluation sheet 1) and then conducted a hearing survey based on the paper surface and face-to-face format (Subject: Wheelchair user, Visually impaired user, Hearing impaired user, Person with developmental disability, Foreign students, Healthy students/3 people per sample group).

5.2 Survey result

Upon aggregating for each item, it was revealed that 77 problems occurred in the moving space, 69 cases in the living space, and 60 cases in the life support were raised (totaling 206 problems including duplication).

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<th>Survey scene</th>
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Table 2. Number of problems reported at KIT

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<td>Figure 1. Survey scene</td>
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Also, in terms of living support, we point out that there is no support such as note taking, PC take, or mobility assistance, and we also speculate that some instances of unique support at KIT may be required based on the results of surveys 1 and 2 (Table 2: prepared by the author).
6. Proposal/Verification

6.1 Proposal

Based on the results of all surveys, we proposed a map showing problem areas and improvement points on the KIT campus and guidelines on support of handicapped and international students as suggested by KIT students (Figures 2 and 3).

Figure 2. Communication supporter system guideline (part)

6.2 Verification

Under the guidelines we created, we verified the feasibility of students' support of a new payment fee type for students of KIT (Table 4) (Respondent: KIT students, 50 people).

As a result, 54% of the existing support system that other universities are doing was negative, while 72% of the total support system gave a positive response.

Figure 4. Impression of the communication supporter system
7. Conclusion/Future Tasks

Overall, it was necessary to prepare guidelines for immediate and reasonable consideration of handicapped students and to make available when enrolling foreign students. In this research, heuristic evaluation was conducted for early problem finding, but going forward, we must continue to improve the learning environment for handicapped students and foreign students.

Acknowledgements

We deeply appreciate the teachers of the Department of Design Management Engineering at Kyoto Institute of Technology.

This work was done in cooperation with Kyoto City Disabled People Sports Center.

Supplement

note 1) Kumamoto Prefecture Civil Engineering Department Building Division; prepared with reference to "UD Evaluation Manual" (2004).

References
