

English Abstracts

A Study of Education in a Graduate School: The Department of Psychology and Human Developmental Sciences

YOSHIDA Toshikazu

This article is a report on the current state, and future prospects of the Department of Psychology of the Graduate School of Education and Human Development at Nagoya University. First, I review the number of applicants, and the admission rate to the graduate program in the past five years, placing a special focus on the number of applicants from our undergraduate program. Second, I made a report on the faculty that comprise the two majors of our department, Psychological Sciences, and Human Development and Clinical Psychology, viewing each section's Masters and Doctorate programs and their curriculum, along with the required coursework. Third, I report on the Team Participatory Graduate Education Program, operated on a grant from the Ministry of Education, Science, and Culture as part of their support for graduate school education initiatives, aimed at giving students first hand experience participating in on-going research projects, hence preparing them for independent research. Finally, I discuss future directions for our Graduate School.

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Curriculum Reform at the Graduate School of Economics and its Expected Educational Effects

ARAYAMA Yuko

This paper reports work on the introduction of a new curriculum at the Graduate School of Economics, Nagoya University and clarifies expected educational effects of the new curriculum.

A group of younger faculty initiated the discussion about the basic structure of a new curriculum and the committee for future planning at the graduate school took over this discussion and proposed it at the faculty meeting to promote curriculum reform. We aimed to improve learning at the undergraduate level, and to construct a system of attractive course work in the graduate school.

The curriculum for undergraduates includes two tracks: learning broad knowledge in business and economics, and pursuing a special interest in specific subjects. Furthermore, we initiated a “5 year bachelor-master program” to promote the award of a masters degree for able students. In the graduate school, we prepared two different course work programs: one for business persons and the other for researchers. We also introduced a “subject oriented workshop” which is taught by multiple professors and can provide a high level research environment.

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Education at the Graduate School of Science in the Age of “Disorder by Information”

SATO Masatoshi

Nowadays, a flood of information has, in some sense, introduced “disorder and chaos” and “complexity” into our society. This has changed the attitude of university students (including graduate students) to their learning science. For them, there are various things more important than studying science hard. The almost competition-free entrance examination and the growth of the domestic economy, which liberates young people from unstable future life, enhance this tendency. This circumstance has given rise to a serious question: What can the people working at Nagoya University do, in parallel with conducting world-class research, to raise excellent scientists with the ability to work energetically with creativity and/or skill? Arguments about what they should keep in mind in the education process, are given from a view point of a physicist belonging to the department of physics, where the possible direction of the improvement of the curriculum is briefly described. The department is worried that various requirements from wider society and government accompanied by certain financial actions act to discourage and distract educational activity. Many other things which should be improved are also pointed out.

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Engineering Education in Graduate School Courses at Nagoya University: Present Situation and Issues

HAYAKAWA Yoshikazu

During the last ten years, the number of graduate course students has increased dramatically in the Graduate School of Engineering, Nagoya University. However, the main focus of graduate education is still to supervise masters' and doctoral research theses. About ten years ago, the graduate school established a unique structure of engineering education and research, called "Flexible Graduate School System". In this system, two groups of departments, the so-called "Ryoiki Senko Group (associated with the traditional fields)" and "Fukugo Senko Group (associated with the interdisciplinary fields)", are integrated through several laboratories belonging to both groups. This enables the interaction between different fields of engineering and technology and encourages education in these areas. In this article, the present situation of engineering education in the graduate school is briefly summarized illustrating some distinguished programs and examining issues raised in two reports which were given by our graduate school and the Japan Engineering Educational Program committee.

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Course Works Integrating the Humanities and Sciences in the Graduate School of Environmental Studies, Nagoya University: A Case Report on Reform of the Common Subjects

YAMAGUCHI Yasushi

This paper reports on the course works integrating the humanities and sciences in the Graduate School of Environmental Studies, Nagoya University, particularly a case report on reform of the common subjects. This school was established in April 2001 as the first interdisciplinary graduate school in Nagoya University. The common subjects were set to provide knowledge on a wide variety of fields that support interdisciplinary environmental studies and thus promote more systematic student understanding of environmental studies. The common subjects used to belong to each department when the school was established. However, we recognized a problem that most students taking a common subject belong to the same department to which the subject belongs, so that it does not help students to widen their views. Thus, from the fiscal year 2007, we reformed all the common subjects to belong to the graduate school, not to each department, and renewed the content of the common subjects as well in order to make the scope and aim of the common subjects clearer. This reform was possible as the mutual understanding and research collaboration among the teaching staff of the school have been greatly improved since the establishment of the school.

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Teaching Research Methodology for Postgraduate Adult Students

CHIKADA Masahiro

This paper examines the content and outcomes of the postgraduate course for adult students in the professional masters program. In the Education Major in the Graduate School of Education and Human Development, Nagoya University, there is a shortage of basic skills for academic writing and critical thinking mainly for adult students in professional programs. Thus the Education Major launched the postgraduate course in 2007 titled “Basics of Higher Education- Research Methodology” for adapting adult freshmen to the graduate courses and learning basic skills required for a master’s thesis.

According to a survey on the course outcomes, some progress has been made especially in the students’ recognition of academic requirements for master theses and of the methods in collecting literature. Besides, many challenges are found through the course experience. Firstly, the major should build and represent the requirements and standards for a master’s thesis. Secondly, the major should provide freshmen with more introductory or remedial courses for academic writing or critical thinking. Thirdly, the major should undertake a survey on the needs and orientations of postgraduate students. The study on postgraduate teaching should be encouraged by each major for the substantial development of graduate education.

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Construction of a 'Network model' of Graduate Education in France: Conversion from the 'Apprenticeship model'

NATSUME Tatsuya

The purpose of this paper is to explain the 'Network model' Graduate education in France. The findings are as follows:

- 1) The French government started the reform of graduate education from the end of the 1980s by establishing new institutions named 'Ecole Doctorale'. They are composed of some laboratories which are accredited by national organization of evaluation.
 - 2) They aimed at converting post-graduate education from the traditional 'Apprenticeship model' to the 'Network model'. Some of the important characteristics are regarded as follows: a. to offer supervision by some professors and researchers, b. to offer some types of courses (specialized education based on each discipline, basic training for developing competency for research including foreign languages, information technology etc.) c. some courses for preparing for employment after getting a Ph.D.
 - 3) Some problems are discussed among stakeholders, researchers, young researchers, etc. They focus on the quality of supervision and courses, limitations associated with the number of students and faculty development for supervisors
 - 4) Some of the problems are dissolved by the Ministry order dated on August 7 2006. It includes some prescriptions; characteristics of doctoral course works as professional activities which is the one of the basic conditions for promoting their rights, limitation of numbers of students etc.
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Designing Research Ethics Courses for Graduate Students: Cases in the United States

SAITOH Yoshiko

It is likely that research ethics (or responsible conduct of research: RCR) education will soon be incorporated into the formal curricula of graduate studies in Japan. This paper reports a study of formal courses on research ethics in the United States, to obtain information and consider the implications for designing such courses in Japan.

Findings are as follows; (1) courses are often developed by an interdisciplinary team, including ethicists and/or educational scientists; (2) there are two types of courses; one focuses on research ethics itself, while the other treats ethics within 'survival' skills; (3) a standard course objective is that students will be able to judge what action is ethical; (4) group discussion is often central in the curriculum; (5) methods of ethics are applied in the discussion. This suggests that support for interdisciplinary collaboration among faculty is essential and implies that course style and development processes are the keys for success in designing such courses. The development of graduate education in research ethics will also be a key in improving the environment for RCR.

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“Guidance of Study” at the University of Königsberg in the 18th Century

FUJII Motoki

The purpose of this paper is to clarify how the tradition of "Liberal arts" since the Middle Ages has been developed in German universities, such as the University of Königsberg. In this paper, I mainly focus on the faculty of philosophy of this University, and examine what kind of reform has been carried out in the latter half of the 18th century under the control of the government. The main historical materials for this analysis are both "*Guidance of Study*" (published in 1770) and "*Studies Bulletin*" (published in the 18th century). These materials show how the government has intervened in academic education and how this faculty constructed the original 'Liberal arts' curriculum. Through this process, I aim to show historical facts about the history of liberal arts education and the historical origin of the "German model", which emphasized the significance of philosophy in the university.

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The Pitfalls of Interdisciplinary Undergraduate Curricula

YOSHIDA Aya

The aim of this paper is to examine undergraduate curricula after 1991 deregulation of the Standard of Establishment of Universities, based on a national survey on undergraduate curricula in 2003. The following four points are found as the result of analysis. 1. There is little difference between faculties regarding the aim of undergraduate education and the credits distribution for each curricula category (general education, specialized education, and free electives). While the faculty of humanities and social sciences make their curricula broad (eg. introducing minors), the faculty of natural sciences and engineering focus on the sequence of the curricula (eg. courses which are required to take in certain grades). 2. The faculty of humanities and social sciences tend to have curricula policy to employ interdisciplinary courses. 3. Interdisciplinary curricula are likely to be employed by faculties in which students' exam scores are relatively low. 4. The curricula called interdisciplinary means fragmented or weak sequences and may have an adverse effect on students' learning and their careers after graduation.

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International Trends in Outcome-Based Higher Education Reform and Their Implications for Japanese Higher Education

KAWASHIMA Tatsuo

Both the deregulation of university chartering and the increase in the enrollment ratio, up to almost 50% of 18 year olds, have brought Japanese undergraduate programs great diversity. However, the “degree” and “major” should represent what graduates have experienced, and knowledge, understanding and skills they have mastered at the end of their programs. In this sense “Bachelor” degrees, regardless of majors, should represent common knowledge, understanding and skills different from those of “Master” and “Doctor” degrees. In other words, “Bachelor” degree has to be defined in terms of “Learning Outcomes” as the common means of designing the curriculum.

In this paper, the author has extensively surveyed international trends in outcome-based higher education reform followed by a critical examination of the recent history of reform efforts in undergraduate programs in Japan. Following this survey, the author proposes the possible introduction of curriculum design based on learning outcomes, while pointing out the advantages, as well as the disadvantages, of the use of learning outcomes.

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The Present Conditions and Challenges of Training and Development Systems and Preparing Future Faculty Programs for Teaching Assistants in Universities in the U.S.

KIRA Naoshi

The purpose of this study is to examine the present conditions and challenges of training and development systems for teaching assistants (TAs), who are used extensively at the undergraduate level of mainly doctorate-granting universities in the U.S. Most doctoral students acquire their research skills through course work, research assistantships, and dissertations. By contrast, there are very few required programs for doctoral students to develop their teaching skills, and teaching assistantships provide them with a precious opportunity to practice and improve teaching.

This study, thus, closely examines the training and development systems for TAs to develop their teaching skills, and it divides the training and development systems for TAs into two phases. The first phase refers to the initial training for TAs, which is further broken down into centralized programs and departmental programs. The second phase refers to the professional development of experienced TAs as future faculty in colleges and universities. Through this analysis, this study sheds light on the actual conditions of research universities that train their doctoral students first as TAs and then as future faculty. This study is preceded by an examination of the reasons behind the expansion of the TA system and the present conditions in research universities.

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