

## Educational Development Utilizing Acquisition of Qualifications as a Visual Certification

— “Consumerism and Life in the Information Society” and the Multimedia Certification Test —

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資格取得を利用した「見える化」による教育の実践  
—消費生活情報論とマルチメディア検定—

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### 概 要

広島女学院大学は、CG-ARTS協会の「マルチメディア」の教育カリキュラムを実践する認定教育校である。また、本学で開講している消費生活情報論は同協会のマルチメディア検定ベーシックの関連科目である。本論文では、資格取得を義務付けた授業としてではなく、授業と学生の自主的な学習で資格取得によってスキルアップと自己研鑽を目指した事例を報告する。学生の学習の動機付けを高めるものとして「見える化」は有効である。その一つとしてノート利用という「見える化」を取り上げた。

**Key words:** 消費生活情報論 Consumerism and Life in the Information Society,  
見える化 Visual, 資格取得 Acquisition of Qualification, マルチメディア検定  
Multimedia Certification Test, ノート Notebook

## 1. Introduction

At our university, there are many extracurricular courses that can be taken to acquire qualifications. In Information and Communication Technology (ICT) there are courses such as the Microsoft Office Specialist Word/Excel Certification, Information Technology Passport Examination, Fundamental Information Technology Engineer Examination, the P-ken, and so on.

Students tend to acquire certifications, hoping to development expert skills and knowledge. In fact, there is a university with a curriculum consisting of subjects to prepared students for the Information Technology Engineer Examination<sup>1)</sup>.

In our university's Department of Life Design and Information Science, many students are eager to obtain the certifications listed in the above. However, while some students take certification tests to help their job hunts, others take them without thinking about their future careers. They expect that a certification will be useful for something someday. In any case, students generally think of certification as a sort of tangible evidence of facility in the area of the certification and feel secure with a certification in getting a job.

Our university has been authorized to administer the Multimedia Certification Test underwritten by the Computer Graphic Arts Society (CG-ARTS) since 2010. This test, revised in 2005, evaluates information and technology (IT) knowledge used in business. It covers IT, content production, and overall business<sup>2)</sup>. Authorized schools must meet certain requirements. For example, the school's curriculum must include necessary subjects and adopt textbooks published by CG-ARTS. At our university, a textbook published by CG-ARTS has been adopted for the course Consumerism and Life in the Information Society. Furthermore, one student in our school can be awarded a CG-ATRS Award each year. This environment leads students to consider taking the test, simultaneously building interest in the subject.

This paper describes the process by which applicants prepare for the test, aiming at specific educational benefits associated with acquiring certification.

## 2. Consumerism and Life in the Information Society and its relationship to the CG-ARTS Multimedia Certification Test

In Rikukawa (1977), the expression “consumerism and life in the information society” is described as all the information people need to live as consumers, or all the information necessary for consumers to voluntarily decide to buy goods and use them safely and appropriately. In the more than 30 years since then, e-commerce, made possible by the Internet, has become an additional medium for obtaining information.

Table 1 contains the syllabus of Consumerism and Life in the Information Society, a course offered in the first semester of the third year in the Department of Life Design and Information Science. Additional content beyond that covered in the CG-ARTS textbook is marked with an asterisk (\*).

**Table 1** Syllabus of Consumerism and Life in the Information Society

1. Guidance
2. Information and consumers in a digital society \*
3. Industrial growth and consumer life \*
4. Products
5. Product development
6. Tending to consume
7. Advertising and marketing
8. Distribution, Information, and Communication Technology
9. World Wide Web
10. Internet business
11. Cellular phones
12. Multimedia products at home
13. Multimedia spreading in consumer life 1
14. Multimedia spreading in consumer life 2
15. Wrap-up

In the guidance segment of the course, students are given an explanation about the basic Multimedia Certification Test. As part of this explanation, students are given an outline including such items as a schedule and the test contents. Whether to take the test is each student's choice. Consumerism and Life in the Information Society is studied in the first semester at our university. The author advises students to take the test in the second semester (November), considering their probability of success. After learning the 15 lessons shown in Table 1, students can raise the probability of passing the test by studying the official set of test questions during summer vacation. However, few students try in this way.

As mentioned above, students are not compelled to take the CG-ARTS test. Credit granted for the class is not directly connected with passing the test. This arrangement reduces the fear of failing the test. Those who do try to take the test are likely to be highly motivated to succeed because they have gained the necessary knowledge in the class.

### 3. Applicants

The primary intent of offering Consumerism and Life in the Information Society is not to increase the number of applicants taking the certification test. Naturally, however, the number of applicants is affected by how the lessons of the course are developed. Videos, newspapers, and flyers are used as real-world visual tools in some lessons in order to increase students' comprehension. After a notice in September 2011 inviting students to take the test, nine students sat for the CG-ARTS test in November. Table 2 summarizes how the course performance of students who take the certification test compares with that of all students who take the course. The table shows that on average, applicants taking the certification test perform comparably to the entire pool of students.

As shown in Table 3, there are six students who took the higher rank expert level test, although the topics covered in Consumerism and Life in the Information Society are for the basic level test. This means that these students are highly motivated. In addition, our university is authorized to administer the CG-ARTS CG Engineer Certification Test. A student who selects the Image Processing Engineer Certification Test is more interested in image processing than in CG, even though we offer no subject that is directly linked with the Image Processing Engineer Certification Test.

**Table 2** Comparison of students' records for the course Consumerism and Life in the Information Society in 2011

	Number of Students	Average Score in Consumerism and Life in the Information Society
Applicants for "Multimedia Certification Test" (Basic)	3	7.0
Applicants for "Multimedia Certification Test" (Expert)	6	7.3
All students who attended Consumerism and Life in the Information Society	105	7.1

Scores are expressed as points out of 10.

**Table 3** Categorization of the nine applicants taking the CG-ARTS tests in November 2011

Category	Level	Number of Applicants
Multimedia Certification Test	Basic	3
	Expert	6
CG Engineer Certification Test	Basic	1
Image Processing Engineer Certification Test	Basic	1

Some students take two tests, so the total number of applications is over nine.

Table 4 shows reasons that students take the Multimedia Certification Test. It shows that applicants do not decide to take the test out of interest but from an urgent need to use the certification in job searches that will begin very soon. This reflects the present difficulty in finding employment. So, as shown in Table 5, the average number of tests per applicant in this group is 2.2 during the second semester for the tests listed in Table 3.

**Table 4** Reasons for taking the Multimedia Certification Test

Reason	Number of Applicants
To add a qualification to the student's resume	9
For the student's future career	4
Out of curiosity about multimedia itself	1

**Table 5** Number of tests other than the Multimedia Certification Test that the nine applicants took during the second semester of 2011

Name	Number of Applicants
Information Technology Passport Examination	3
Secretarial Skills Test	4
The Japan Kanji Aptitude Test	1
Environmental Specialist Certification Test	1

Kanji are Chinese characters.

#### 4. Preparation for the Multimedia Certification Test

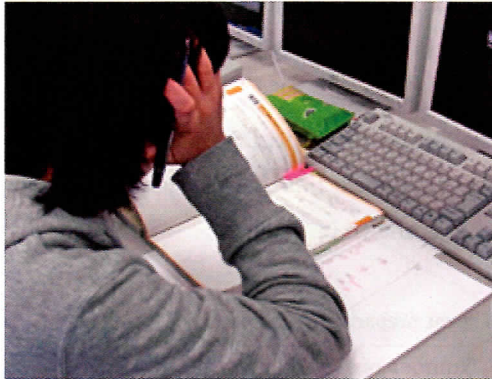
The author has had the opportunity to see applicants once a week to check on their progress since September. Figure 1 shows photos of applicants.

It has been long taken for granted that university students need to be guided in their studies, e.g. compelling them to take notes during lectures. In our university, freshmen are required to take the Basic Seminar, where they learn essential study skills that they will need as university students.

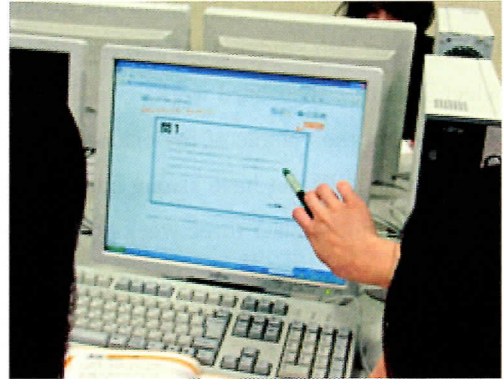
However, few students use notebooks, writing materials, or even their textbooks if they are not requested to take them out of their bags. Moreover, in the past, some students wrote answers directly on their own set of official questions collection, which prevented them from redoing questions they had previously solved. Even though they know they should solve questions, they do not know how to study.

Considering this background, it is helpful for applicants to keep a notebook to use exclusively when studying the official set of questions for the test. Students are made to use one page per question, correct any errors, and then add comments or information that could counter a lack knowledge concerning that question. Figure 2 shows samples of notebooks.

In response to the question "How do you use your official question set if you are not directed to keep a notebook?", almost all applicants responded that they would write only their answers either in a notebook or on a sheet of paper. They also commented that using the notebook, they can easily see what they have not worked on as well as what they have done and that writing helps them keep important points for questions in mind, as well as the answers. So, applicants seem to feel that making a notebook as shown in Figure 2 is useful as a study log and in forming memories about the questions. We also think that taking

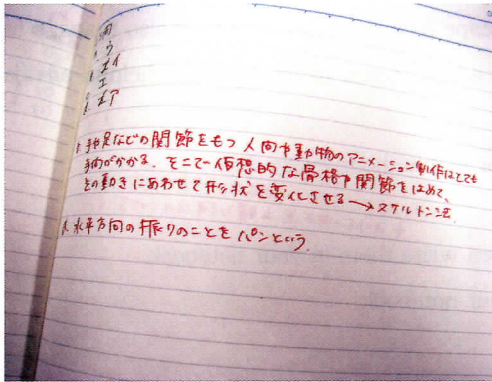


(a) Individual study

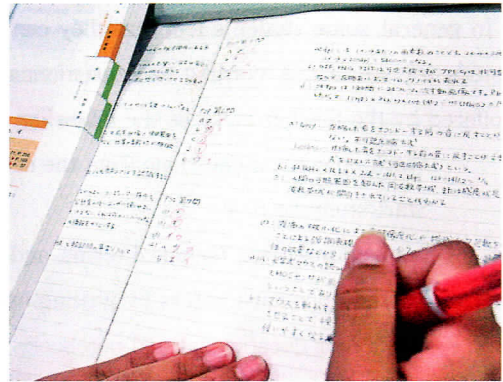


(b) Pair study with a friend

Fig. 1 Applicants studying for a test



(a)



(b)

Fig. 2 Samples of applicant notebooks

- (a) Answers are written at the top of a page and important matters concerning the answers are described only at the bottom of the page.
- (b) Answers are written on the left side of a page and important matters concerning the answers are described only on the right side of the page

notes focuses students' minds on the questions. One other benefit is that applicants may be provoked into studying for the test more earnestly by seeing other students' notebooks, which illustrate their hard work.

Considering the volume of the official question set, it may be surprising that more than half the applicants did not have strong intentions of devoting much time per day to preparing for the test during the last three weeks before the test, as shown in Table 6.

**Table 6** Time per day applicants spent preparing for the test

Time per Day	Number of Applicants
Less than 30 minutes	5
60 minutes	3
90 minutes	1

In general, some students feel that they can escape from studying, but they also manage to study for the test. According to a questionnaire administered to the students, helpful advice offered by the teacher includes the following:

Work on solving questions from the set for just an hour every day.

Start studying now.

Look up unknown technical terms, and then write them in your notebook.

Learn important matters by writing in your notebook.

Open your question set and notebook.

Applicants seem to prefer specific directions that lead them to continue studying for the test. A notebook seems to trigger the opening of their textbooks.

## 5. Summary

This study focuses on the following three points.

- i. The Multimedia Certification Test is accepted as tangible documentary evidence of students' study of the subject consumerism and life in the information society.
- ii. Making a notebook as mentioned in Section 2 is useful as a visible log of applicants' efforts to prepare for the test. A notebook can play the role of circumstantial evidence of their work.



- iii. Knowing how to study as well as what to study can help applicants direct their work in preparing for the test.

## References

- 1) Makoto J. Hirayama, *KIT progress*, 17, 201-216, 2010
- 2) <http://www.cgarts.or.jp/english/human.html> , 11/13/2011
- 3) Kiyoshi Rikukawa, *The Journal of the Japan Documentation Society*, 27(10), 502-511, 1977