

10. Development of Curricula and Methods for Training and Student Assessment to Foster Reading Literacy

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1. Background at the time of commencing the study

The Organisation for Economic Co-operation and Development (OECD) conducted the second Programme for International Student Assessment (PISA) in Japan in 2003, in which the National Institute for Educational Policy Research played the central role. As is widely known, the average reading literacy score of Japan ranked eighth place (522 points) in 2000 but dropped to 14th place (498 points) in 2003, hovering around the OECD average score. The ranking was almost the same as that of the United States and the drop was the most significant among the participating countries. Meanwhile, in the mathematics and science sectors, the Japanese average was in the top-ranking group, registering the highest level in the world.

Major results of the PISA reading literacy tests (2000 – 2003) were as follows.

- (i) Japan's no-response rate for open-ended questions was extremely higher than the OECD average, both in the 2000 (+ 8 points) and in 2003 (+8.1 points) surveys.
- (ii) In the 2003 survey, all of the questions for which Japan's no-response rate exceeded the OECD average by 9 points or more were open-ended.
- (iii) For 70 percent of the open-ended questions, the percentage of questions answered correctly decreased by 3 points or more in the 2003 survey from the 2000 survey.
- (iv) Out of the questions for which the no-response rate increased 5 points or more from the 2000 survey, 67% were open-ended.

In short, Japanese upper secondary school students are considerably bad at answering open-ended questions, compared with the OECD average. This tendency became more pronounced in the 2003 survey, and may be one of the reasons that Japanese upper secondary school students' reading literacy is ranked at such a low level.

2. Purpose of the study

In the three years for which we would like to receive the Grants-in-Aid for Scientific Research, we will clarify the following points and act accordingly.

- (1) By having the first-year students of the pilot schools answer the same questions as those which appear in the OECD tests, we will clarify the following:
 - (i) What kind of questions students are good at or bad at
 - (ii) What problems there are in students' answers to open-ended questions
 - (iii) Why those who did not answer a question could not provide any answer

- (iv) How students feel about questions in PISA tests and whether they feel any resistance based on their cultural background
- (2) Based on the findings of (1) above, the cooperators will develop a training method to foster international reading literacy and conduct demonstration classes.
- (3) After the demonstration classes, we will verify whether students have acquired international reading literacy skills by conducting tests

3. Study method

- (1) All staff members are to be divided into an elementary school team, a lower secondary school team, and an upper secondary school team. Each team will make a concrete study plan regarding curricula, teaching materials, and training and student assessment methods.
- (2) Leaders and study members will make a concrete study plan regarding methods to develop a consciousness survey and a field survey.
- (3) Based on the discussions at the study meeting, the head office will prepare questionnaires for the pre-class consciousness survey.
- (4) When preparing questionnaires, all parties will communicate with each other through Groupware, and amendments should be repeated until a consensus is reached.
- (5) We will ask nine pilot schools to conduct the pre-class consciousness survey of students and teachers, as well as the field survey of students.
- (6) For this fiscal year, nine member teachers will conduct one demonstration class each. Curriculum plans, teaching materials, and training and student assessment methods should be e-mailed to and shared among all parties in advance.
- (7) The head office will compile and compare the results of the pre-class and post-class consciousness surveys and, based on these results and those of the field survey, clarify the following points:
 - (i) How students' consciousness changed after the demonstration class
 - (ii) What relationship can be observed between changes in students' consciousness and the field survey results and training conducted mainly in the demonstration classes at pilot schools, and what types of training methods can be proved to be effective

4. Results of the study

In order to develop training methods to foster reading literacy that enables students to cope with the OECD-PISA reading literacy survey, we conducted the following measures in cooperation with a total of 42 members (6 university instructors, 11 supervisors, 12 elementary school teachers, 7 lower secondary school teachers, and 6 upper secondary school teachers).

- (1) We completed our theoretical study on the improvement of teaching methods and created a

teaching theory suitable to Japanese society. The results were publicized in the form of a book, entitled, *Introduction to “Book Club”: Overcoming Weakness in the PISA Reading Literacy through the Delightful Acquisition of Critical Reading Skills Grounded in Extensive Reading and Discussion* (Meijitoshō).

- (2) Based on the achievements of past studies on teaching methods, we developed curriculum plans and teaching plans prior to demonstration classes by using Group Mail for consultation.
- (3) We conducted demonstration classes in cooperation with 12 elementary school teachers, 7 lower secondary school teachers, and 6 upper secondary school teachers. We also had a post-class meeting to evaluate the results and make improvements.
- (4) We publicized the curriculum plans, teaching plans, detailed class records, achievements, and problems on our website to disseminate the study results.
- (5) At the Japanese Teaching Society of Japan conference, the study leader and three cooperators (one each from among the cooperative elementary school teachers, lower secondary school teachers, and upper secondary school teachers) presented the study outcomes.
- (6) We compiled and comprehensively analyzed the consciousness surveys and concretely presented measures to improve teaching methods. In the study report, we compared the results of pre-class and post-class consciousness surveys, and indicated changes by school stage and by teacher for each questionnaire in graph form, thereby clarifying the achievements and problems.
- (7) We compiled the analysis results of theoretical study, demonstration classes, and consciousness surveys, and completed our report, along with the gist of our presentation for the academic conference and materials for guidance.

Reports on this study

Development of Curricula and Methods for Training and Student Assessment for Fostering Reading Literacy – For Developing Classes Where Students Acquire International Reading Literacy Skills to Cope with the OECD-PISA Survey (March 2010)

<http://kaken.nii.ac.jp/ja/p/19330207>

http://www.nier.go.jp/arimoto/recentR/2007-09Report1_1.pdf