## Disaster Preparedness Education Course in the Teachers' Certificate Renewal Programme in Okinawa, Japan

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Japanese government established the system for renewing educational personnel certificates in 2007 and mandated the adoption of it in April 2009 (cf. "2007 White Paper on Education, Culture, Sports, Science and Technology", available at http://www.mext.go.jp/english/). This system shows that the valid period for each regular certificate after the renewal system adoption (April 1, 2009) is until the end of the fiscal year after ten years from satisfying the qualifications required for the certificate. Only persons who have attended over the 30 hours certificate renewal courses and passed the examination before the expiration of the valid period can renew their certificate which is valid for next ten years. The purpose of this system is for teachers to acquire the latest knowledge and skills of the education.

Certificate renewal courses authorized by Ministry of Education, Culture, Sports, Science and Technology of Japan are offered mainly by universities. Attendees will choose based on their specialty and awareness of issues from the various courses with education curriculums. Currently, they should learn the following three categories of the courses in order to renew their certificates. (1) One 6-hours compulsory course: regarding the latest trends and issues in education, the education policy in the country and the trend of the education in the world, the latest knowledge about the cerebral science and psychology about the growth of children, and so on. (2) One 6-hours compulsory elective course: depending on the category of their possessing certificate, category of the school where they work, their experience as an educational personnel, including curriculum revision guidelines, curriculum management, crisis management at schools, latest improvement of the teaching method, career counselling and carrier education, cooperation of the school with the home and the area, moral education, understanding the globalisation and the diversity, and so on. Disaster preparedness education is included in this category. (3) Three 6-hours elective courses (total 18 hours), regarding their specialty and other educational enhancement.

In 2008, before the official implementation of this programme, provisional certificate renewal courses were offered for trial by more than 100 universities. The author offered a 6-hour course titled by

"Development of teaching materials for school pupils to make understand the dynamic motion of the earth –utilising the results of the GPS ranging". This course was targeted mainly for science teachers of middle- and high-schools. The goal of this course was for the attendees to understand the role of GPS ranging for the direct observation of the crustal movement and plate motion, and to produce the teaching materials possibly used in the classrooms.

After the 2011 Great East Japan Earthquake, from 2012, the author started offering a new course for disaster preparedness education titled "towards the strong Okinawa, resilient against natural hazards" as one of the courses of the teachers' certificate renewal programme once every year.

Schedule of the course is: (1) Lecture on recent natural hazards such as earthquakes, tsunamis, landslides, tropical storms, storm surges, etc. all of which occur frequently in Okinawa, and their mechanisms (1 hour); (2) Making teaching materials for disaster preparedness education at their classrooms (2 hours); (3) Trial lecture by use of the teaching materials made by each attendee, discussion by all (2 hours); and (4) Finalising the teaching materials and submission (1 hour).

The attendees can copy the teaching material as the final product of the course and can later use this for their disaster preparedness class at each school. Main targets are science and home economics teachers of middle- and high-schools. However, the course is open for teachers of elementary schools and kindergartens as disaster preparedness education is essential for all generations. Besides how to evacuate to save their lives, one of the important factors of the disaster preparedness is managing a tentative shelter at a school and what school pupils can do for evacuee at the shelter. The author would like to introduce some of the examples of the teaching materials made during the course.

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