

# ELEMENTARY SCIENCE IN THE REPUBLIC OF THE MARSHALL ISLANDS

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The Republic of the Marshall Islands (RMI) consists of 31 atolls located in the Pacific Ocean 3,200 km south west of Hawaii and about 2,100 km south east of Guam. The education system of the RMI is essentially modelled on the education system of the United States. It consists of elementary schools (grades 1-8) and high schools (grades 9-12). Most children in the RMI attend elementary school, but enrolment in the high schools is very competitive. Only slightly more than half of the high school-aged population attends high school.

Since the late 1970's the elementary school curriculum has included a science course, the Marshall's Science Program, developed specifically for schools in the RMI. This course consists of a series of teachers' guides with activity-based lessons written in both English and Marshallese. Along with the teachers' guides, all schools were supplied with simple kits which provided the necessary equipment to complete the course.

Although there has been no formal research into the effectiveness of the course, informal feedback received by the Ministry of Education has indicated that in the majority of elementary schools the course is no longer being used and many schools have simply given up teaching science. This is despite the fact that science comprises 20% of the high school entrance examination.

A number of tentative suggestions have been offered as to why this situation has arisen. These are:

- (i) many of the materials, both books and equipment have gone missing from the schools;
- (ii) the written materials themselves are rather intimidating, with dense text and few diagrams (see Appendix);
- (iii) when the course was introduced, there was insufficient in-service training to make teachers feel confident in the delivery of the curriculum.

However, the end result is that most students complete their elementary education with almost no background in science. This causes obvious problems in the high schools, and is undesirable in the general population.

The Ministry of Education is currently taking remedial action. A decision was taken to abandon the Marshall's Science Program and replace with a course requiring less equipment and with a significantly 'friendlier' format. To do this, the Ministry has established a team of 6 experienced elementary school teachers who will assist the recently appointed Elementary Science Specialist. This team has drawn up a new science curriculum outline for elementary grades 1 to 6, with objectives for each topic. The emphasis is mainly on the biological sciences which can often be taught with an absolute minimum of equipment. This should remove one of the perceived constraints of the previous program.

The team has now embarked on the production of new teachers' guides which will draw heavily on primary science materials from other parts of the Pacific, in particular atoll nations such as Yap and Kiribati. Adapting existing materials should facilitate the writing process and the hope is to have draft guides prepared for early 1994.

While it is admirable that the Ministry of Education in the RMI is trying to correct the deficiencies in elementary science, it is regrettable that the situation arose in the first place. The considerable effort and expense invested in developing the Marshall's Science Program appears to have achieved very little.

It is vital that the same fate does not befall the new science course, but with no firm evidence for the demise of the original program, some research is urgently required to ascertain what actually happened.

There are enormous logistical problems associated with the introduction and monitoring of any new course in the RMI. But a workable system of in-service training needs to be established if teachers with weak science backgrounds are to be given the confidence to deliver this subject effectively.

The Ministry is currently examining the most cost effective ways of delivering training to its teachers and is seeking external funding for a comprehensive in-service program.

Hopefully, this renewed effort and the determination to learn from past mistakes will finally ensure the establishment of elementary science as a credible subject in the elementary curriculum.

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