

A Comparative Analysis of Ocean Literacy Coverage in the Educational Standards of Taiwan and the USA.

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The ocean is one of the most significant resources on the planet Earth. Ocean Literacy (OL) promotes understanding of the ocean environment, communicate new knowledge of marine sciences and cultivate an understanding of the environment and ethics of the public, thereby protecting the oceans. At present Ocean Literacy is the emerging concepts in the field of education. Integration of OL concepts in the general education system is pivotal to publicize the importance of the ocean, explain the consequences of harmful activities on the ocean, and lastly to develop sensitivity towards the ocean. This study examines the incorporation of seven ocean literacy principles in Taiwan National standards and Next Generation Science Standards (NGSS) of the USA from grade I-XII in the level wise format, i.e. primary, middle, higher secondary. The study followed a qualitative approach.

According to the analysis, the average basic literacy concept, directly or indirectly addressed in Taiwan National standards is observed to be 13.3, in the NGSS (USA) is 11.3. It implies that Taiwan educational standards encompass more OL concepts than the educational standards of the USA. The National ocean literacy grade from "A" to "F" has been assigned to the countries depending upon the mean coverage value. The national OL grade "C" and "D" has been assigned to Taiwan and the USA respectively. The study reflects comparative analysis of OL coverage among two above mentioned countries' educational standards. Out of the seven essential principles of OL, principal number 6 and 5 are highly emphasized in the educational standards of Taiwan whereas in the educational standards of the USA principal number 2 and 6 are accentuated. This depicts that both the countries prioritize the concepts highlighting the interdependencies of the ocean and humans in their respective general education system. The findings expect to draw the attention of curriculum designer, marine educators and researchers across the world towards the status of OL in existing general education system of Taiwan and the USA by providing the reference.

Keywords: Education standards, Geo science education, Ocean Literacy