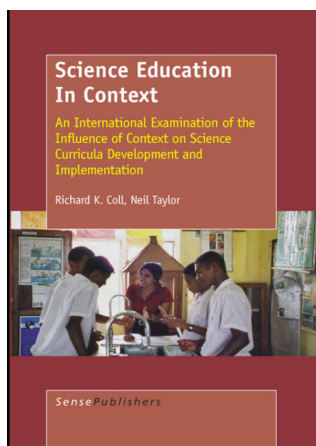

Book Review

Muammer Çalık, Section Editor



SCIENCE EDUCATION IN CONTEXT

By

Richard K. Coll and Neil Taylor (Eds.)

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Sense Publisher, Rotterdam / Taipei

362 page

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The book entitled '*Science Education in Context: An International Examination of the Influence of Context on Science Curricula Development and Implementation*' contains 27 principal chapters from 25 different developing countries, apart from two editorial chapters. In each chapter, some aspects of science curriculum such as curriculum development; research or evaluation of an implemented curriculum; discussion of pressures driving curriculum reform or implementation of new curricula and so forth are discussed in a specific educational context.

Even though the book refers to context on science education, the editors mean the context in which the teaching and learning takes place instead of usage of a context-based approach to learning and teaching. Why this book is necessary can be outlined as follows: (1) Since effective science curriculum is of considerable importance internationally, the problems and issues associated with the development of curriculum, especially in science education, have been appeared (2) Although most countries have national science curricula and have witnessed the development of new national curriculum statements in related subjects such as technology, the prevalence of the public's beliefs is not in a harmony with scientific views.

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The book's theoretical basis is on socio-cultural approach where learning occurs in a variety of contexts or situations. Further, the book focuses on the 'situatedness' of learning, and its impact on curriculum.

What the editors concluded throughout the book are as follows: (1) most countries have undergone numerous reforms but they have rarely measured incremental development designed to build on past experience (locally or international), or based on sound evaluation of the impact of prior reform (2) The *political dimension*, which acts as a key driver in science curriculum development and reform, influences its development and implementation. (3) 'top down' model is very common for science curricula development and reform instead 'bottom up' process (4) Since the majority of the science curricula reforms has tended to exploit Western thinking, new science curricula are inevitably based on some form of foreign or imported Western science curricula (5) despite exerting much efforts with financial support, there is a lack of evaluation of these extensive curricula efforts in terms of enhanced learning outcomes.

What the editors recommended is in the following: (1) a detailed and careful 'needs analysis' needs to be conducted by curriculum developers and those involved in curriculum reform by locating a balanced science curricular aims with respect to actual local, contextual, needs in terms of science content (2) building upon substantive evaluation of past local experiences in curriculum development/reform should be paid more attention within international experiences and research (3) curriculum development/reform is supposed to involve a holistic process into the aims of the curriculum, the theoretical underpinnings, and the assessment regime (4) substantive, supportive, collaborative teacher professional development oughts to be included in curriculum development/reform (5) rather than involving a feedback loop based on regular monitoring of successes and failures, a slow, measured, manner should be enacted in curriculum development/reform.

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