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Adapting/Adopting Best Practices

What recommendations can we make with respect to the move from transferring something that works in one country to what is actually needed in the destination country? (How do we adapt rather than simply transplant/transfer, a best practice from one country to another in a way that meets the needs of the destination country)

Learning from one another across countries and cultures should be a hallmark of education in a global society (See the example presented at the end of this section). However, blanket adoptions can lead to unintended consequences that actually inhibit progress in reaching desired educational outcomes. The structure of the educational system of a country, created by the government, is often strongly influenced by the social and economic needs of the country and the society's philosophies on education. Thus, in considering whether to adapt/adopt an educational practice, countries should recognize the following:

- The “adapting” country must first and foremost understand its social and economic needs and detect the areas where it would be important to make changes in its educational system.
- It is critical that the country be committed to make changes before any effective change can take place.
- Being aware of the various approaches and teaching practices of different countries and making comparisons are important considerations for making progress.
- Decisions have to be arrived at collectively from bottom-up as well as top-down.

Teaching practices in most countries have a strong dependence on cultural traditions. Hence before strategies or approaches can be adapted and effectively transferred to another country with a different cultural background, there is a need to understand

- the beliefs of teachers from both countries
- the cultural and philosophical underpinnings of certain teaching practices and their sources
- the influence of such practices on the teaching and learning of mathematics.

In the process of carrying out the changes, the “adapting” country should recognize the following:

- Small-scale trials should be carried out before implementing the changes in the entire education system.
- effective measures that worked well in one country may not necessarily be effective in another country.
- the success formula that helped one country overcome its limitations in the present may not be relevant for the future.
- the solution to one problem may bring about other problems.

Example

Singapore provides an example of how a country adapted its education system and policies. Singapore, which currently has a strong educational system widely recognized for its high levels of mathematical achievement among students of varying abilities, started from relative disarray, structured and implemented a plan to improve, and today still draws lessons from other nations. To preserve its strength and overcome limitations, Singapore adapted and formulated its own unique solution.

In the 1950s, Singapore was a multi-racial society, and education was seen as a means to achieve national cohesion and economic re-structuring. Hence the first common mathematics syllabus was introduced in 1959 with the emphasis that mathematics must be taught as a subject for all races in a multi-lingual education system.

In the 1970s, Mathematics education took on a different focus when Singapore went through a phase of rapid industrialization and economic development. Mathematics was made a compulsory subject for all students up to Secondary 4 (which would be equivalent to age 16 in many countries).

In the 1980s, in a continuing effort to upgrade the workforce, the Ministry of Education revised the mathematics program.

In the late 1990s, to prepare students for the 21st century, driven by rapid advancements in technology and a knowledge-based economy, the mathematics syllabi were revised. Shaped by the need to harness the potential in technology and the emphasis on thinking skills, the content to be taught to all students was reduced, and the inclusion of information technology and thinking skills was explicitly specified in the syllabi.

In 1995, Singapore students in grades 4, 8 and 12 scored among the top in the Third International Mathematics and Science Study (TIMSS). In 1999, Singapore students in grades 4 and 8 again scored among the top countries on TIMSS R,

In 2004, the Ministry of Education in Singapore launched a new initiative: SAIL, Strategies for Active Independent Learning for some subjects. The idea originated in Vermont, USA and was adapted for use in some schools in Singapore.

Conclusion:

When considering whether the Singapore curriculum could be adapted/adopted in other countries to produce higher levels of achievement for students, one must recognize that the education of those selected to be prospective Singaporean teachers at the beginning of their post high school experience is funded by the government. These individuals attend a post high school institution explicitly designed to prepare teachers. Additionally, the culture of Singapore is focused on improving the status quo, using whatever resources can be adapted to their context and needs.