SABER

Information and Communication Technologies

2016

Globalization and rapid technological change have made knowledge a critical determinant of competitiveness in the world economy. With globalization, the information revolution, and increasing demands for a highly skilled workforce, it is clear that countries must be capable of using technology effectively in education. SABER-Information and Communication Technologies (ICT) aims to improve the availability of policy-related data, information, and knowledge on what matters most in using ICTs to improve the quality of education. SABER-ICT is being developed in close partnership with other development institutions, building on their initiatives to improve the knowledge base.

Why do countries invest in information and communication technologies?

The use of ICTs in education can potentially accelerate learning and improve student familiarity with the use of technology, which is fast becoming a basic competency in the work place. As a result, many countries are investing in ICTs in their education systems.

What challenges exist?

Despite large investments in ICTs and the increasing strategic importance of this topic in many countries, many basic questions about the use of technology in schools around the world remain largely unanswered. Internationally comparable data related to ICT use in education do not exist. Efforts to assess the impact of large scale initiatives to introduce and/or use ICTs in education are often complicated by the lack of reliable baseline data in these and other areas.

Because most ICTs-related initiatives in education in developing countries to date have been focused much more on supplying schools with computers and internet connectivity than on integrating technology into curricula at all education levels, ICTs have so far largely failed to realize their promise as a 21st century pedagogical tool. Today, many education systems that are popularly considered 'high performing' in their use of ICTs appear to merit this recognition because of large-scale adoption of ICTs rather than cost-effectiveness and impact of ICT investments.

What is SABER-Information and Communication Technologies?

Using new diagnostic tools and detailed policy information, the World Bank Group's Systems Approach for Better Education Results (SABER) platform collects and analyzes comparative data and knowledge on education systems around the world and highlights the policies and institutions that matter most to promote learning for all children and youth. SABER's detailed data-gathering and analysis are organized by "domains," or areas of education policymaking within an education system. These currently include levels of education (early childhood development, primary and secondary, workforce development, and tertiary), types of quality resources and supports (school finance, school health and school feeding, and teachers), areas of governance (engaging the private sector and school autonomy and accountability), information sources (education management information systems and student assessment), and complementary inputs and cross-cutting themes (equity and inclusion, information and communication technologies, and resilience). SABER aims to give all parties with a stake in educational results—from

students, administrators, teachers, and parents to policymakers and business people—an accessible, detailed, objective snapshot of how well the policies of their country's education system are oriented toward ensuring that all children and youth learn.

The SABER-ICT tool supports activities to help policymakers make informed decisions about how best to use ICTs to help meet core education sector objectives. A framework is currently under development to assist policymakers as they attempt to assess and benchmark their own policies on ICT use in education against those of comparator countries around the world, identifying key themes and characteristics and building a global database of policy documents on ICT use to serve as a foundation for the framework. Additionally, SABER-ICT supports the collection of key data related to the use of ICTs in education, as part of a larger international, multi-stakeholder initiative to improve the availability and quality of ICT data and indicators for education in developing countries.

What drives effective Information and Communication Technologies?

Based on a review of policies related to the use of ICTs in education, SABER-ICT has identified eight key policy themes and characteristics:

- Vision and planning
- ICT infrastructure
- Teachers
- Skills and competencies
- Learning resources
- Education management information systems
- Monitoring and evaluation, assessment, research, and innovation

- Equity, inclusion, and safety

Work under most SABER topic areas begins with a framework paper, which investigates the evidence and outlines what matters most to improve policy frameworks for learning. Given the lack of rigorous data to support assertions in the area of ICT, work under SABER-ICT began from a different starting point than many of the other SABER modules. Viewed from one perspective, the SABER-ICT policy framework is initially an attempt to help catalog and analyze answers to the question, "What do policymakers *think* matters most, on the basis of the policy guidance that they have put forward?" This helps policymakers to look at the many policies related to ICT use in education around the world in a more structured way.

How will SABER-Information and Communication Technologies help to improve education systems?

The SABER-ICT policy framework can be used as a diagnostic tool to assess the current state of policymaking in a country related to ICT use in education. It can help improve education systems by:

- Placing current policy guidance within a larger continuum, to help determine how such policies might or should change over time.
- Assisting policymakers in comparing their policy environments to those in other countries. Where similar policy environments exist, there may be scope for sharing lessons about what works and what does not. Also, when SABER-ICT

identifies a country whose policies are further along the development continuum, there may be scope to learn more about how and why it has reached that stage, and draw important implementation lessons when planning for new policies going forward.

- Identifying potential disconnects between policy guidance on related themes that suggest a lack of policy coherence or that may be a barrier to policy implementation.

SABER-Information and Communication Technologies Partners

SABER-ICT has received support from the Korean Trust Fund and partners with a number of likeminded international organizations. As part of this work under the SABER-ICT initiative, the World Bank Group is part of a consortium of organizations that have joined together to help explore harmonized approaches to data collection related to ICT use in education and propose sets of common 'indicators'. Most notably, the World Bank Group participates in an international Working Group on ICT Statistics in Education (WISE), led by the UNESCO Institute for Statistics (UIS). This effort is part of a larger international, multi-stakeholder initiative to improve the availability and quality of ICT data and indicators, particularly in developing countries. The Australian Government's Department of Foreign Affairs and Trade (DFAT) is also a strong supporter of SABER and education systems research and has done much work to support the application of SABER globally.