Executive Action Plan

GLOBAL EDUCATION | **SKILLS**

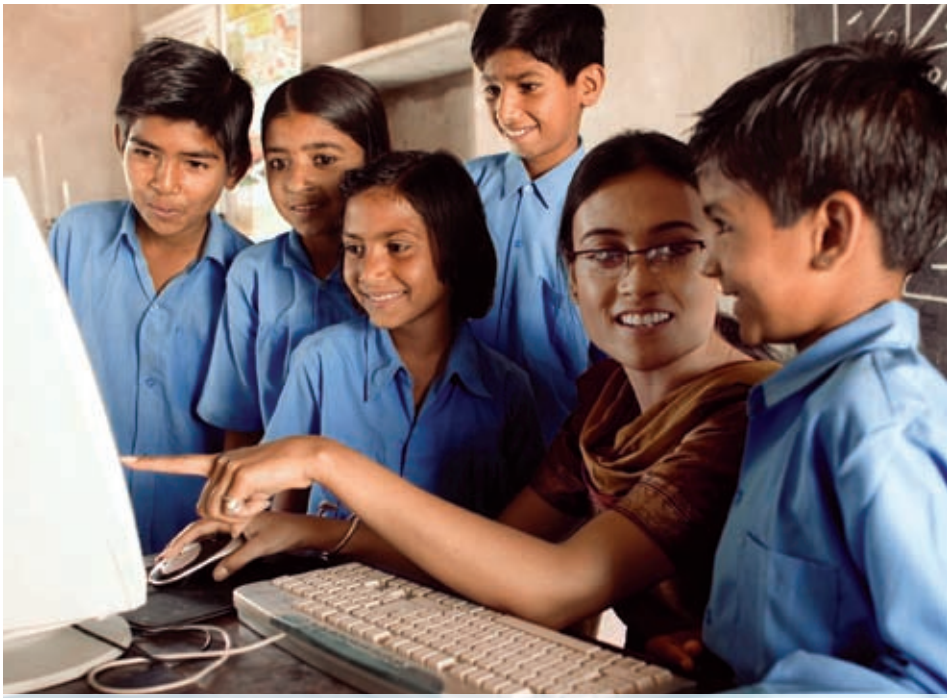
Cisco's Global Education group is actively engaged in the work of transforming education systems to meet the needs of 21st century learners, educators, and organizations. This transformation will require a shift in the way teachers teach, leaders lead, and students learn.

Designing a Professional Development Program for the 21st Century

A successful professional development program will help districts achieve the following goals:

- Give all teachers the skills and tools needed to work efficiently and effectively
- Provide ongoing, cost-effective learning opportunities
- Provide relevant, engaging professional development opportunities
- Maximize time teachers spend with students
- Accommodate varying levels of competency and individual learning styles
- Maximize investments in technology
- Ensure consistency of education delivery across schools and grade levels
- Support new teacher induction and improve retention rates
- Evaluate results

To be effective in 21st century classrooms, teachers must embrace and become proficient in information and communication technology (ICT), new pedagogical approaches, new content areas, and the integration of technology into pedagogy and curricula. These sweeping changes require new approaches to professional development and leadership that address the entire context in which education professionals work.



A Systematic Approach to Professional Development

The following discussion provides an overview of processes and best practices for designing a 21st century professional development program. In many cases, districts will work with education partners to implement these components.

- Set goals that align with the district's vision
- Assess teachers and identify skill gaps
- Select or create professional development offerings
- Provide examples of good lesson design and model desired skills
- Build capacity and foster independence
- Provide ongoing professional development opportunities
- Organize professional learning communities
- Continue to evaluate and refine practices
- Maximize your investment

Success Factors for Professional Development Programs

- **Centralized planning –** A steering committee works collaboratively to help ensure consistency of learning and assessment, proper pacing, and efficient use of time and resources.
- **Organizationwide inclusion –** Professional development is offered to all individuals who work with students, including teachers, reading specialists, special needs teachers, volunteers, tutors, and administrators.
- **Teacher-centered curriculum –** Although overall district goals are the same for all teachers, the curriculum is tailored to address participants' needs regardless of their current skill level, grade level, subject area, and learning style.
- **Relevant content –** Instead of adopting an entire curriculum, the district selects only professional development courses that are immediately relevant to teachers.
- **21st century pedagogy and technology –** Training courses use the same pedagogical approaches and technology that teachers are encouraged to use to teach their students.
- **Clear expectations for learning –** District sets timelines for participating in professional development and for demonstrating skills acquisition and competency.
- **Top-down modeling –** The superintendent, cabinet members, administrators, and other leaders also engage in professional development training to develop leadership skills as well as learn what their teachers are learning.
- **Small steps –** Teachers start with a small group or one subject at a time so that they can slowly incorporate new lessons and help their students' adjust to changes in pedagogy or technology.

Set Goals that Align with the District's Vision

All good planning for education transformation begins with defining a vision for 21st century education and deliberately aligning all goals and actions with this vision. Identify the teacher skills and knowledge required to accomplish this vision. Then, form a steering committee to plan all professional development activities for the next two to three years. Clearly articulate goals, challenges, and expected outcomes. To free up time, resources, and funding, eliminate existing professional development programs that do not directly relate to the goals. When bringing in consultants and technology vendors to provide training, facilitate sessions where all parties work as a team to provide a coherent, integrated set of offerings that align with the vision.

Assess Teachers and Identify Skill Gaps

Assessment will help the district identify teachers' strengths and weaknesses, set realistic short- and long-term goals, establish a baseline for comparison, and select the proper programs. Develop standards against which to assess teachers and create rating criteria that define high-quality instruction. Base standards on district goals, nationally recognized ICT standards, proven frameworks, input from education transformation consultants, and standards of national boards and professional associations. Use traditional assessment tools such as computer-based tests, surveys, questionnaires, and interviews. In addition, review lesson plans; observe teachers working with technology in classrooms; and survey, observe, and interview students.

Select or Create Professional Development Offerings

Professional development can range from individuals going to off-site conferences, workshops, and other school districts to large-scale, district offerings; self-paced online instruction; and collaborative study groups. Create a limited menu of professional development experiences that complement one another and engage teachers in authentic, relevant work. When possible, deliver professional development through collaborative technologies such as TelePresence, video conferencing, blogs, podcasts, and online training courses, in order to model technology integration, minimize costs, extend the reach of the training, and easily replicate workshops. Offer professional development in multiple modalities to address teachers' individual learning styles. When teachers are learning how to use new technology, pedagogy, or curricula, separate offerings into introductory sessions where teachers learn how to use devices, programs, and strategies, and more advanced sessions that focus on integrating technology, curricula, or pedagogy into instruction in meaningful ways.

Provide Examples of Good Lesson Design and Model Desired Skills

Provide examples of good lesson designs and ways that teachers can effectively integrate technology into lessons. Provide a format or template for designing lessons. Leverage network infrastructure to encourage the online development of lesson plans and to catalog lessons that can be tailored to individual needs.

Use role-playing, in-class modeling, videos, and other technologies to allow teachers to compare different teaching approaches or observe desired skills. Develop protocols for observing and critiquing modeled skills so that teachers know what to look for and become comfortable with giving and receiving feedback. Have teachers practice modeled skills as soon as possible in their classrooms, and then discuss what works and what does not work.

Build Capacity and Foster Independence

Enlist technology integration specialists, technology interns, master teachers, formally trained mentors, and other individuals to coach and support teachers. These individuals can model best practices, observe teachers and provide feedback, and suggest how to effectively integrate technology or new skills into lesson plans. In addition, they can help teach classes until new teachers are comfortable doing so on their own. Instruct these individuals to use the "gradual release" approach advocated by The New Teacher Center: I do, you watch. I do, you help. You do, I help. You do, I watch.

"Urban school educators were the least likely of all educators to have received adequate training to use technology, particularly to use either administrative or instructional software and to design individual lessons for students."

Access, Adequacy, and Equity in Education Technology

A publication of the National Education Association in collaboration with the American Federation of Teachers, May 2008

Provide Ongoing Professional Development Opportunities

Schedule professional development so that teachers are not overwhelmed by too much training and can retain and apply what they have learned. When planning training sessions for new technology, minimize the gap between implementation and the training so that teachers can use the technology immediately to reinforce their skills. Besides formal workshops and off-site events, dedicate time to supporting weekly professional development in ICT skills, curricula, and pedagogy. In addition, schedule time for teachers to work collaboratively on curriculum development and related content.

Organize Professional Learning Communities

Professional learning communities (PLCs) are a powerful, cost-effective, and scalable way for education professionals to learn and collaborate on an ongoing basis. Start by organizing PLCs around topics, subjects, or grade levels. Identify a high-level goal that ties together the work of all PLCs; for example, curriculum alignment for K–12. Limit the size (five to eight teachers per group) and number of PLCs, and specify goals, tasks, work products, or areas of study. Support PLCs by monitoring them, setting expectations, and recognizing accomplishments. Use blogs, message boards, virtual discussion groups, video conferencing equipment, and other online tools to help PLCs collaborate efficiently and effectively.

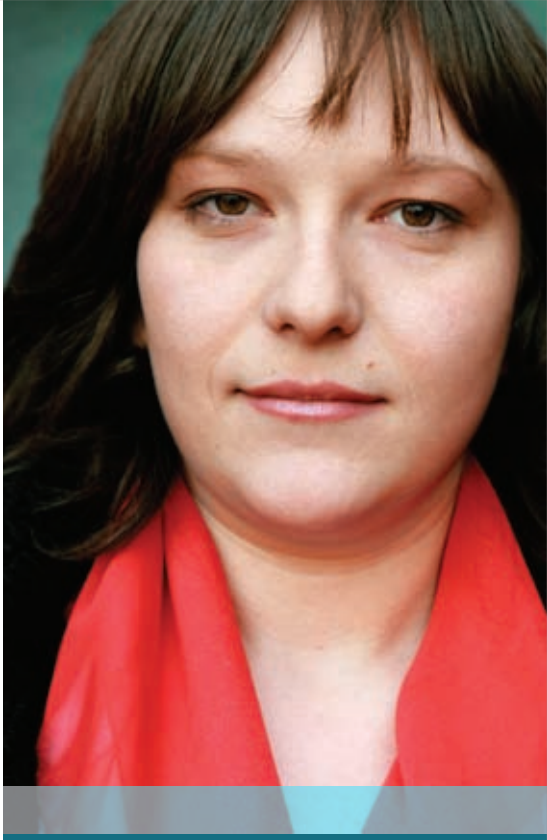
Continue to Evaluate and Refine Practices

Use formative assessment to continually evaluate teachers' progress, deepen learning, and plan future training sessions. Assessment can also be used to gauge the efficacy of professional development programs and improve offerings. Remember to examine the effectiveness of pedagogical approaches and support mechanisms such as coaching, modeling, and professional learning communities. Consider how technology could facilitate or augment professional development. Gather feedback from teachers immediately after every training session as well as after they begin to incorporate new skills into the learning environments. Provide additional support as needed and adjust future offerings accordingly.

Maximize Your Investment

To maximize the impact of professional development programs, set expectations for ongoing participation and deepening proficiency in pedagogy, curricula, and technology use. Select the most motivated and most qualified teachers for special workshops and conferences by having teachers meet specific goals or compete for grants. Require attendees to teach what they have learned to nonparticipants. Require teachers to submit weekly technology-use logs to demonstrate how they are using the technologies they have learned about. Encourage teachers to present at conferences and submit articles to online newsletters and journals. Finally, reward teachers for expanding their skills and knowledge. Provide incentives such as early-release days, stipends, bonuses, professional recognition, or opportunities for master teachers to earn money by consulting with other schools.

For more information about Cisco Global Education, please visit our website at **www.transformglobaleducation.org**.



"A major challenge in professional development is helping teachers, policy makers, and local communities unlearn the beliefs, values, assumptions, and cultures underlying schools' standard operating practices, such as forty-five minute class periods that allow insufficient time for all but superficial forms of active learning by students."

Transforming Education for the 21st Century: New Pedagogies that Help All Students Attain Sophisticated Learning Outcomes

Chris Dede, Harvard University, February, 2007

Cisco Recommended Ecosystem Partners for System Transformation

Resources for Professional Development

- **Metiri Group**
  (www.metiri.com)
  Education consultant that provides a broad range of services that empower educators to advance effective teaching and learning, use technology in powerful and meaningful ways, and foster 21st century skills.

- **Building Learning Communities**
  (www.novemberlearning.com)
  Alan November, whose November Learning organization provides professional development to help educators use ICT to enhance learning, assembles a handpicked team of education practitioners and world-class presenters for an annual summer conference that combines discussion and hands-on practice.

- **The Consortium for School Networking**
  (www.cosn.org)
  This organization offers conferences and resources to support leadership development and awareness of emerging education technologies. It has created a framework of essential skills to help district leaders develop their technology leadership skills.

- **Lesley University**
  (www.lesley.edu)
  This university offers online programs for undergraduate and graduate-level courses in using technology in teaching and learning.

- **National Educational Computing Conference**
  (www.iste.org)
  This annual conference, sponsored by ISTE, provides a forum for thought leaders, technology vendors, and education professionals to share ideas, best practices, and the latest developments related to integrating technology into 21st century learning environments.

- **New Teacher Center**
  (www.newteachercenter.org)
  This highly successful teacher and administrator mentoring program helps professionals develop leadership and teaching skills by observing them on the job, and then providing real-time coaching and feedback.

- **Partnership for 21st Century Skills**
  (www.21stcenturyskills.org)
  The Partnership for 21st Century Skills offers a comprehensive catalog of resources related to professional development.

- **Promethean Planet**
  (www.prometheanplanet.com)
  This site contains lessons and professional development materials related to interactive whiteboards and integrating technology into curricula and pedagogy.

- **WIDE World**
  (http://wideworld.pz.harvard.edu)
  This Harvard Graduate School of Education (GSE) site offers online learning programs for professional development and using technology in classrooms. Harvard GSE also offers summer institutes for professional development.

- **Working on the Work (WOW)**
  This conference, offered by the Schlechty Center (www.schlechtycenter.org), focuses on student engagement and leadership.

Teacher Assessment

- **National Educational Technology Standards for Teachers (NETS-T™) and NETS for Administrators (NETS-A™)**
  These standards, published by ISTE, define what teachers and administrators need to know and be able to do with technology in order to produce successful student outcomes.

- **United Nations Educational, Scientific, and Cultural Organization (UNESCO) ICT Competency Standards for Teachers**
  UNESCO, in cooperation with ISTE, Virginia Tech, Cisco, and other technology leaders, recently released ICT Competency Standards for Teachers.

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