

Forum Guide to Elementary/Secondary Virtual Education Data

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Project of the National Forum on Education Statistics

■ Mission

- ❑ To plan, recommend, and develop education data resources that will support local, state, and national efforts to improve public and private education throughout the United States.

■ Members

- ❑ Representatives of state and local education agencies
- ❑ Representatives of federal agencies that collect and use education data
- ❑ Associate member representatives from RELs, national education associations, and U.S. territories

Virtual Education Working Group

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Updating the 2006 Guide

In 2006, the Forum published the *Forum Guide to Elementary/Secondary Virtual Education*.

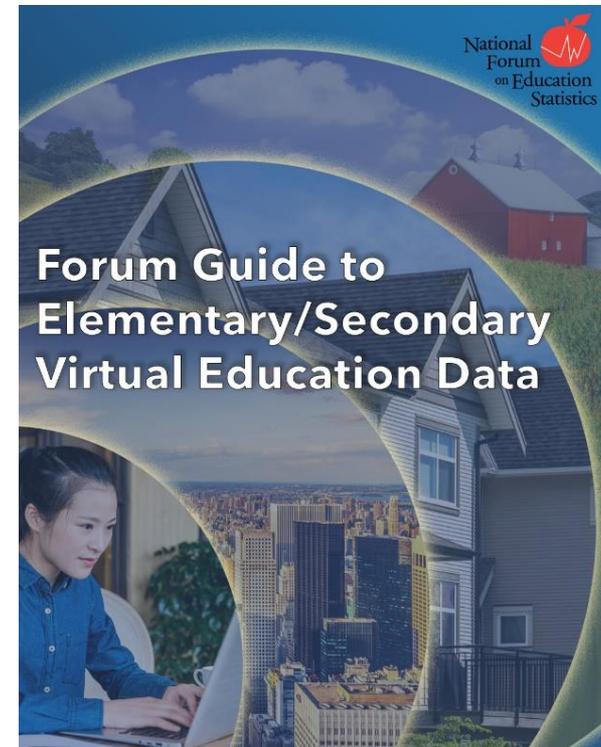
Why update?

- ❑ The virtual education environment has grown in ways unanticipated in 2006, and includes vastly different technologies and approaches to teaching and learning.
- ❑ SEAs, LEAs, and others continue to need data on emerging virtual education opportunities and trends to understand its uses and its impact on teaching and learning.
- ❑ New developments such as CEDS and SCED have made it easier for SEAs and LEAs to collect, manage, compare, and use education data to inform and improve education.

Document Purpose

To assist SEAs and LEAs as they

- ❑ consider the impact of virtual education on established data elements and methods of data collection, and
- ❑ address the scope of changes, the rapid pace of new technology development, and the proliferation of resources in virtual education.



What is Virtual Education?

There is no clear, uniform definition of “virtual education.” It may include:

- ❑ Digital learning
- ❑ Distributed learning
- ❑ Open learning
- ❑ Networked learning
- ❑ Web-based education
- ❑ Online learning
- ❑ Cyber education
- ❑ Net education
- ❑ Computer-based learning
- ❑ Distance learning
- ❑ Blended learning

For our purposes, “virtual education” is defined as:

instruction during which students and teachers are separated by time and/or location and interact via internet-connected computers or other electronic devices.

Structure of the Guide

- ❑ **Chapter 1** examines the role of virtual education in the changing world of elementary and secondary education, reviews commonly used virtual education terminology, discusses the importance of high-quality data for informing policy, identifies challenges to collecting virtual education data, and suggests methods for modifying traditional education data definitions.
- ❑ **Chapter 2** identifies data elements commonly used in virtual education data systems. The elements identified in the Guide are not meant to provide a comprehensive list of virtual education data elements; they are intended as a starting point for agencies to develop or expand their data systems. The list can be modified and adapted to meet the needs of each agency.

Structure of the Guide

- ❑ **Chapter 3** provides education agencies with
 - ❑ a list of topic areas for consideration when collecting virtual education data or modifying existing data systems to accommodate virtual education data;
 - ❑ real world examples of the challenges involved in collecting quality virtual education data;
 - ❑ virtual education policy questions;
 - ❑ common practices for updating data systems and modifying data elements to encompass virtual education data; and
 - ❑ links to data elements in CEDS that can be used to answer policy questions.

Structure of the Guide

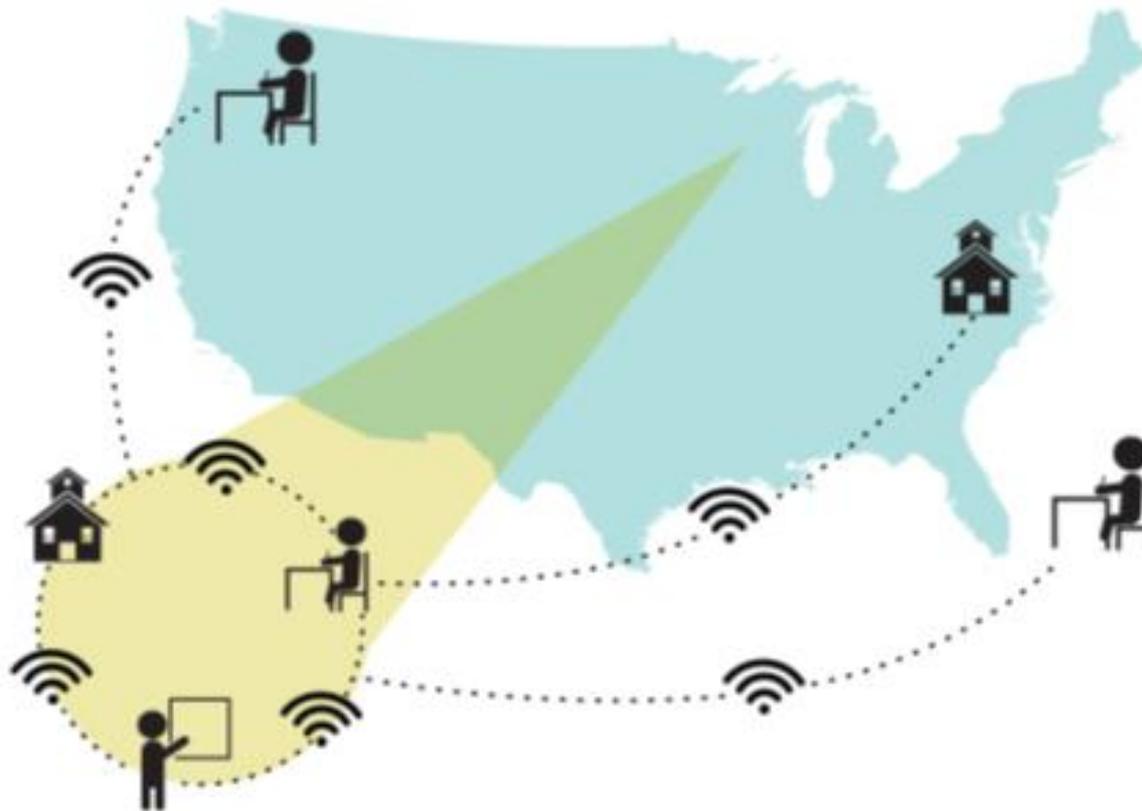
- **Appendices** include
 - examples of how SEAs and LEAs have addressed virtual education data collection challenges;
 - links to SEA offices and websites that address virtual education;
 - suggested elements for virtual education data systems;
 - information on other Forum guides; and
 - additional resources.

Developments in Education Technology and Virtual Education

New technologies have enabled the expansion of virtual education and have brought about changes in teaching and learning:

- ❑ Online supplemental resources
- ❑ Integrated devices and resources, such as one-to-one and BYOD policies
- ❑ Completely online accredited education, with highly qualified teachers and curricula fully aligned with SEA standards

Organizational Structure of Virtual Education



Pace and User Experience

Course Section Pace

- ❑ Synchronous Pacing
- ❑ Asynchronous Pacing
- ❑ Combined Synchronous/Asynchronous Pacing

Tailored Teaching and Learning

- ❑ Individualization
- ❑ Differentiation
- ❑ Personalization

Virtual Education Data

Existing data systems that are capable of providing high-quality data for accountability and decisionmaking *may not be able to accommodate virtual education data systems* that are not aligned along traditional administrative, instructional, and policymaking channels.

Data Challenges

- ❑ Variation among SEAs and LEAs
- ❑ Data management/governance when students are enrolled in multiple districts
- ❑ Virtual education providers' data collection timelines
- ❑ Tracking and accounting for students not enrolled in state-sponsored virtual schools
- ❑ Flexibility in grade levels and school assignments in virtual environments
- ❑ Information relevant to virtual education may not comply with established reporting schemas
- ❑ Blurred distinctions between instructional time and homework

Data Challenges *(cont.)*

- ❑ Virtual education courses may not fit traditional ideas of course duration or structure
- ❑ Difficulties in evaluating programs without high-quality data
- ❑ Changes to established structures/cultures
- ❑ Lack of integration between virtual education data and other data systems

Data Opportunities

- ❑ New technologies facilitate easier implementation of individualized, personalized, and differentiated education
- ❑ Increased ability to award course credit based on a student's mastery of materials rather than time spent in class
- ❑ More precise information on student skills and knowledge
- ❑ Immediate feedback
- ❑ Ability to view data such as the path a student took to solve a problem

Topic Areas

1. School Identification/Classification
2. School Governance
3. School Accreditation
4. School Contact Information
5. School Location
6. School Enrollment
7. School Calendar
8. Course Information
9. Course Section Information
10. Unit Information, Learner Activities, and Resources
11. Content Governance and Accountability
12. Reporting Information
13. Safety and Discipline
14. Student Information
15. Student Enrollment/Exit Information
16. Student Attendance Information
17. Student Participation/ Performance Information
18. Student Progress Information
19. Student Disability Information
20. Staff Member Information
21. Staff Member Employment Status
22. Staff Member Employment Credentials
23. Staff Member Assignment Information
24. Staff Member Attendance Information

Topic Area 8: Course Information

Example:

A student took English I in 9th grade at a virtual school, so her guidance counselor assumed she would be prepared for English II when she enrolled the next year at the local high school. Unfortunately, the virtual school curriculum was not aligned to state standards...

Policy Questions:

- Does your curriculum framework or standard apply to virtual coursework?
- Do your organization's required content assessments apply to virtual coursework?
- Can students acquire exceptions to curriculum framework and assessment requirements (e.g., for transferred coursework)?
- Can you map transferred course information, including credits, to your organization's course classification system?

Topic Area 8: Course Information

Common Practices:

- Course names may vary between organizations (and different subject matter areas may have the same, or similar, course names). Whenever credits are transferred, course codes and coding systems need to be coordinated between institutions for the data to be meaningful.
- Terminology regarding frameworks, standards, benchmarks, grade level expectations, etc., may also vary between organizations. Organizations must be aware of these differences and their effects on data when transferring information.
- The School Courses for the Exchange of Data (SCED) Classification System provides a voluntary, common classification system for prior-to-secondary and secondary school courses that can be used to compare course information, maintain longitudinal data about students' coursework, and efficiently exchange course-taking records.

Appendices

Appendix A: Examples of SEA and LEA Policies

- Course Scheduling and Credit
- Attendance and Competency

Appendix B: SEA Virtual and Distance Learning Websites

Appendix C: Suggested Elements for Virtual Education Data Systems

- All elements are available in CEDS Version 5
- Elements are organized according to Topic Areas listed in Chapter 3

Appendix D: References and Related Resources

- References and Related Resources
- Additional Resources
- Forum Resources

Privacy, Confidentiality, and Student Protection

Any data system that collects information about individual students and staff members should comply with regulations and professional standards intended to protect the privacy, security, and confidentiality of students, staff, and parents.

The U.S. Department of Education's Privacy Technical Assistance Center (PTAC) provides several relevant resources through the PTAC [toolkit](#).



Privacy Technical
Assistance Center

Other Forum Resources

Download free PDF and HTML versions of publications at:

<http://nces.ed.gov/forum/publications.asp>

