SLDS Best Practices Brief

Effective Implementation of Statewide Standardized Course Codes

Statewide standardization of course codes is becoming increasingly prevalent as states conduct new kinds of analyses (e.g., evaluating college and career readiness, studying the impact of course-taking patterns), implement the Common Core State Standards[1], and link student and teacher data. This product provides best practices and lessons learned offered by Alaska, Ohio, and Maryland regarding the implementation of statewide standardized course codes.

Brief 5
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Do:

- ☑ Form the "right" planning and implementation team of LEA, program area, and IT representatives.

- ☑ Analyze existing local course structures and involve LEAs to develop an implementation plan.

- ☑ Find the proper software and system to fit your state's needs.

- ☑ Communicate and demonstrate to LEAs the practical value of statewide course codes.

- ☑ Create effective channels of communication that alert all involved parties.

- ☑ Collaborate with and involve LEAs of various sizes and capacities throughout the implementation.

- ☑ Document procedures.

- ☑ Make the process as transparent as possible.

- ☑ Prepare for the full rollout to take place over multiple years.

- ☑ Carefully evaluate the need for and costs of implementing code changes.

- ☑ Analyze local data systems to determine readiness to accept state course codes.

- ☑ Link course codes to learning standards.

[1] The Common Core State Standards Initiative is a state-led effort that defines the skills students should have throughout their K12 education so that they will graduate high school equipped with the knowledge and tools to succeed in the workforce or postsecondary education.

Standardizing the way district and state data systems code courses is critical to improving data quality, especially for ensuring accurate linkage of teachers and students, and helping schools and districts to efficiently maintain and exchange high quality longitudinal information about students' coursework. For example, standardized course codes facilitate the efficient exchange of records and student transcripts as a student advances through the education system and transfers from one education institution to another. This, in turn, helps districts to ensure that students are placed in appropriate courses and helps the state to examine whether students are given equitable educational choices and opportunities.

Maryland

Maryland has been working on standardizing course codes since 2010. The Maryland Data Project's portal serves a number of functions for LEAS and provides

- an online repository for Race to the Top governance and management of documents;
- a library for multimedia user training modules; and
- a portal where users can edit and update their current course mappings (preloaded into the tool) and compare their course mapping progress to that of other LEAs within the state. (See Figure 1.)

According to Robert London of the Maryland Department of Education, the dashboard option encourages comparative analysis between LEAs, which has spurred some healthy competition and motivated LEAs to complete mappings.

Welcome, rlondon!   Dashboards

Subject Area Totals for LEA	LEA Totals for all Subject Areas	CTE by Subject by LEA	Courses by Subject by LEA	LE

LEA Number	LEA Name	Total # of Courses	Total SCED Assigned	Total SCED Unassigned	CTE Complete Assigned
01	Allegany	278	159	119	79
02	Anne Arundel	618	394	224	177
03	Baltimore County	804	467	337	156
04	Calvert	267	173	94	64
05	Caroline	154	90	64	71
06	Carroll	440	264	176	135
07	Cecil	421	288	133	43
08	Charles	435	288	147	91
09	Dorchester	168	97	71	35
10	Frederick	802	523	279	157
11	Garrett	288	185	103	75
12	Harford	359	226	133	111
13	Howard	524	380	144	48
14	Kent	145	88	57	44
15	Montgomery	1	1	0	0
16	Prince George's	981	484	497	167
17	Queen Anne's	435	357	78	55
18	St. Mary's	433	344	89	0

Figure 1. Maryland Data Project portal

Standardization of course codes across a state also improves the state's and its districts' ability to accurately and efficiently track which courses meet state graduation requirements; gather long-term data on courses taken and teacher performance; and reliably measure the impact of both on student learning.

According to states, the following practices will support effective standardization of course codes. (Note: These suggestions do not necessarily represent the views of the IES SLDS Grant Program).

Form the "right" planning and implementation team of LEA, program area, and IT representatives.

When implementing standardized course codes, it is important to form a team of experts and interested parties with a variety of backgrounds and expertise. Ideally, this team should include a combination of IT support, local education agency (LEA) staff, research analysts, program managers, and subject matter experts. Although it may be difficult to meet with all of the team members together, it is important to involve each role. Meet with program managers to address the data in which they are interested. Solicit feedback from LEA staff about key user-related issues, such as the software used. A diverse team will be better equipped to handle challenges and offer solutions to make implementation easier.

Analyze existing local course structures and involve LEAs to develop an implementation plan.

A thorough examination of the state's existing course code environment is necessary before implementing state or national course codes. By identifying the differences that exist among districts' course codes and staffing capacity (i.e., number of staff, level of experience, previous involvement, preferred channels of communication), a state will gain a better understanding of each district's strengths as well as potential challenges within each district. From there, a state will be able to assess which types of support and resources each district will need to successfully begin implementation.

Once an analysis of all districts has occurred, states can form a plan of action with their team to meet each district's needs, while efficiently working towards course code mapping and standardization within the state.

Find the proper software and system to fit your state's needs.

Ensure that the software you select to implement the statewide course codes has appropriate functionality and will be easy for staff of all technical skill levels to use. If the use of software proves to be a challenge for end users, it will be more difficult to motivate LEA staff to map course codes. Test the software on a pilot group of LEA staff and other potential users. Once a tool has been selected, develop and disseminate training resources (e.g., user manuals, online tutorials, etc.) to make districts' transition to using the software as smooth as possible. Offer additional support services throughout the implementation as well.

Communicate and demonstrate to LEAs the practical value of statewide course codes.

Once course codes have been established, it is important to increase LEA participation and gain buy-in across districts. Effective and consistent communication about how these data will be used is critical to achieving these goals. Provide tangible examples of how data on statewide course codes will be used by the state and how these data could be used by LEAs to reduce time burden (e.g., when students transfer) and to inform policy and instructional decisions. The benefits of standardization should be addressed when encouraging LEA participation (both initially during the pilot phase as well as throughout the implementation process). Messages should be tailored to support specific LEA environments by considering factors such as staff size, communication preferences, and available technology.

Create effective channels of communication that alert all involved parties.

States offer varying advice on how to effectively communicate with all involved parties. While some suggest a top-down approach, alerting only the head leaders within a district or team, other states note that communicating with all members involved is just as productive. Regardless of how your state prefers to communicate, ensure that you have a detailed communication plan and all affected roles are aware of the status.

Maryland's communication protocol, for example, communicates to all involved parties. The state's superintendent first sends a memorandum to all LEA superintendents. A webinar is then held during which the

Ohio

Ohio established the Educational Management Information System (EMIS) more than 20 years ago. Over the decades, EMIS has gone through many changes and has evolved to meet the needs of over 1,000 districts and community schools. To map to Ohio's state course codes, districts use one of several student information system vendors. Districts can use their own codes for local use, but must map state subject codes for biannual reporting.

Currently, Ohio's course codes are connected to many processes at the department, including course matching to teacher credentials; determining state approval and funding of career and technical education programs; and validation that a student has met graduation criteria.

course code changes or updates are addressed. From there, a rollout discussion board may be used depending on the update or perceived need. According to Robert London of the Maryland Department of Education, the state tends to "throw a broad net" when communicating and informing involved parties and LEA staff. Because some LEAs have their own internal communication challenges, Maryland's communication protocol informs all involved parties directly.

When it comes to outreach, it is important to find the balance between over-communicating and not communicating enough. Regardless of which communication style works best for your state, *not* communicating is not an option.

Collaborate with and involve LEAs of various sizes and capacities throughout the implementation.

For many states, such as Alaska, districts' sizes and needs vary greatly. For instance, larger districts may require more sophisticated technology and software than smaller districts. As a result, it is important to get feedback from LEAs throughout the implementation of standardized course codes.

There are many ways to involve LEAs throughout the implementation stage. In Alaska, the state education agency implemented a pilot group among the LEAs to provide feedback and technical support. Throughout

the implementation process, Alaska has continued to provide technical support to this group via face-to-face engagements and webinars. Alaska's vendor also assists districts by providing technical support, including assistance with mapping.

Document procedures.

States should try to document every step of the implementation process, as well as the steps leading up to implementation. Documenting procedures ensures that states do not have to "reinvent the wheel" when it comes to communication, outreach, and training. Documenting communication procedures also ensures that messages will be consistent and will reach intended staff members. Documentation also makes it easier to share changes and updates among team members and LEAs, and facilitates knowledge transfer as staff change over time. For example, creating thorough user manuals equips both new and experienced staff members with the knowledge to effectively use the course code software.

Documenting steps to a process also provides the state with the opportunity to reflect on the process and identify how it could be improved and/or made more efficient.

Make the process as transparent as possible.

Use of transparent processes ensures that team members and districts understand what is required for standardizing courses, why it is important, and how the effort is progressing. In some instances, transparency may lead to comparative analysis among districts that will encourage the completion of course code standardization. For example, Maryland uses an online database that all LEAs

can employ to track and compare their progress to that of other LEAs. Allowing LEAs the opportunity to share and compare course mapping progress among districts increases the transparency of the process.

Prepare for the full rollout to take place over multiple years.

While it may be easy to estimate the time it should take to implement and update course codes within a state, how long it actually takes to implement these changes is another matter. Because many districts rely on a small group of administrative staff to perform multiple roles, standardizing course codes may be difficult to complete quickly. States suggest looking at standardizing course codes as a long-term process that requires not only changing course codes, but also changing how LEAs support this effort. For many LEAs, it may take months or even years to fully update course codes to align with state- and/or national-level course codes.

Carefully evaluate the need for and costs of implementing code changes.

Once statewide standardized course codes are implemented, states will need to decide which course codes should be combined, updated, or created to keep the system running as smoothly as possible, and reflective of current legislation and evolving user needs. The state should create a set of criteria for making consistent decisions about modifying or making additions to the course codes. While some changes, such as updating or editing course codes, may not be significant, creating a new course code will affect the software as well as current mappings created by LEAs. Ultimately, major changes

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Alaska

Non-alignment of course codes across districts is an issue in Alaska—a state that spans over 600,000 square miles and includes 54 geographically and culturally diverse districts that have a high degree of local control. These factors have posed challenges during the process of implementing standardized course codes, which has been under way since September 2011.

While the vast majority of the state's courses can be mapped to School Codes for the Exchange of Data (SCED) codes, Alaska offers many courses that are unique to the state, including Alaska tourism and lodging, native art, and arctic survival. The state also offers special course arrangements such as joint English/Social Studies courses. In these cases, if the courses have merged content, they are included in either one or both subject areas.

A vendor was chosen to assist in the mapping process for LEAs and to facilitate the matching of local course codes to state or national course code standards. Stakeholders are able to access an online central database, which stores course catalogs and makes automapping recommendations to help users map local and state courses to SCED, or local courses to the state course codes.

to course codes cost money and time. Therefore, it is important to evaluate changes proposed at the state level and decide whether current course codes can be updated or edited or if new course codes should be created.

Analyze local data systems to determine readiness to accept state course codes.

Ideally, the local student information system (SIS) should be able to assign both a local code and a state code to every course, and then create sections (instances) of each course for scheduling. A local learning management system then would be able to show, for any class section, the applicable learning standards via the state course code.

Unfortunately, many local systems do not have this capability. In lieu of linking course codes to learning standards, a reliable method should be in place to cross-walk local course codes to state course codes. With such a cross-walk, there should be process controls in place to verify that LEAs are using local equivalents to the state codes and not creating new codes that may have no state equivalent.

Link course codes to learning standards.

Linking course codes to learning standards is important for comparison across courses. Courses that have different learning standards should have different course codes. For tested subjects, states should link to state standards or the Common Core State Standards (CCSS) framework for accountability testing. If a state has not adopted standards for non-tested subjects, then national standards—such as the National Association for Sport and Physical Education (NASPE) for physical education and the National Art Education Association (NAEA) for visual arts education—can be implemented.

Available in the Public Domain Clearinghouse: Kansas Course Code Management System

The Kansas Course Code Management System provides an interface for districts to import or enter their local course information, match the courses to standard state course codes, and then download the standardized data (in preparation for loading into their local system). This tool also allows state-level users to enter and manage state course information, and to generate and access various reports.

For more information on and to download the Kansas Course Code Management System, visit the Public Domain Clearinghouse (PDC) via GRADS360° (*https://nces.grads360.org*).