



UNITED STATES DEPARTMENT OF EDUCATION

OFFICE OF THE INSPECTOR GENERAL

January 12, 2005

INSPECTION MEMORANDUM

To: Philip Maestri
Director, Management Improvement Team

From: Cathy H. Lewis
Assistant Inspector General
Evaluation, Inspection and Management Services

Subject: Review of the Department's Knowledge Management Initiatives and Best Practices from Other Federal Agencies (ED/OIG I13E0022)

Executive Summary:

This memorandum provides the results of our inspection of the Department's knowledge management (KM) initiatives. Our objectives were two-fold: 1) to assess current efforts within the Department to manage knowledge and information assets; and 2) to identify low cost knowledge management activities at other Federal agencies that could assist the Department in its human capital planning activities.

Mirroring a government-wide trend, approximately 33% of the Department's employees will be eligible for retirement in 2006, signaling the potential for significant loss of information and knowledge about Department programs and operations. The President's Management Agenda recognized the importance of capturing the knowledge and skills of retiring employees and it also acknowledged the importance of knowledge management generally as "part of an effective strategy that will help generate, capture and disseminate knowledge and information"¹ within an organization.

In FY 2002, the Department's Blueprint for Management Excellence recognized the potential usefulness of knowledge management and recommended, as part of its human capital initiatives, that the Department:

"Form a team of employees to develop statements of work that use knowledge management to a) create an inventory of employee skills, b) document 'how things work in ED,' and c) record best educational practices."

¹ PMA, page 13, <http://www.whitehouse.gov/omb/budget/fy2002/mgmt.pdf>

This action item was closed in December 2002 because, according to the Executive Management Team, the statements of work submitted did “not adequately capture what needs to be done with regard to knowledge management.” A new action item was to be created in FY 2003; however no new action item was developed. Knowledge management can have many different aspects. For purposes of this inspection, we have examined initiatives undertaken by the Department, or by principal offices within the Department, with reference to the three objectives identified in the Blueprint action item.

In 1998, prior to the development of the MIT action item, the Department began development of its ConnectED Intranet site, which provides access to Department administrative policies, forms and directives. Although not specifically developed as knowledge management tool, the site does address the second of the MIT action item objectives: documenting “how things work.” In 2002, the Department developed the “What Works Clearinghouse,” which shares information on the effectiveness of educational programs, products, practices and policies and, as such, is responsive to the third objective identified in the MIT action item. The Department has not, however, created an inventory of employee skills or otherwise developed tools specifically designed to help share knowledge or document “how things work” in the Department.²

One area in which knowledge management tools can be very useful is human capital planning, particularly the support of Department or component level workforce and succession plans.³ In September 2004, the Department released its recently developed Human Capital Plan. The plan does not currently articulate a knowledge management strategy for the Department or identify how specific KM tools could be used to support workforce or succession planning.

Some of the Principal Offices within the Department have successfully implemented other KM projects that address the MIT objectives. Although some of these efforts might be of interest to several offices, information about these projects has not been widely disseminated within the Department. In addition, we also have identified some low cost knowledge management projects undertaken by other federal agencies, including NASA, and the Department of Labor, that also might be used by the Department to help it address one or more of its stated knowledge management objectives.

Recommendation:

Based upon our inspection, we recommend that:

1. OM articulate a knowledge management strategy, tied to the Department’s human capital plan, particularly with reference to workforce and succession planning.

² The Department has developed three initiatives, the Employee Skills Inventory System, the GoLearn on line training program and Individual Development Plans, that could be part of a component’s workforce or succession plan; however, none of these initiatives address the Department’s stated KM objectives.

³ The Office of Personnel Management, the Office of Management and Budget and GAO in their jointly developed, “Human Capital Standards for Success” recognized the importance of knowledge management to effective implementation of a human capital plan. Human Capital Standards for Success: <http://apps.opm.gov/HumanCapital/standards/index.cfm>

2. The specific implementing action steps identified by OM include sharing and promoting the successful KM initiatives already underway within the Department and sharing information about initiatives underway in other Departments, as appropriate.

Objective 1: What KM initiatives currently exist in the Department?

The importance of knowledge management was recognized in the Department's Blueprint for Management Excellence. Although the specific action item identified as part of that process was not completed, the Department has knowledge management tools in place that at least partially address two of the three objectives identified. The Department has not developed an inventory of employee skills nor has it articulated a knowledge management strategy part of its human capital plan, or otherwise identified specific KM tools that would support workforce or succession planning. Some offices in the Department have undertaken their own knowledge management activities that address the Blueprint for Management Excellent objectives and these should be more widely shared across the Department.

In November 1998, prior to the development of the Blueprint, the Department developed ConnectED, its intranet site. Although the development of the site predated the MIT action item on knowledge management, the site does speak to one of the MIT objectives: documenting how things work within ED. The site includes a useful and very accessible repository of commonly used forms, administrative policies and administrative directives. In 2002, the Department's Institute of Education Sciences introduced the "What Works Clearinghouse" (WWC). On an ongoing basis, the WWC gathers studies of the effectiveness of educational interventions (programs, products, practices and policies). It reviews the studies that have the strongest design and reports on the strengths and weaknesses of those studies against the WWC Evidence Standards so that users know what the best scientific evidence has to say. The WWC provides reports with a rating system that gives the users a sense of how much they can rely on the research study findings reviewed. This system responds to the third MIT objective: recording best educational practices.

Specific knowledge management tools that would be helpful in the human capital area include the skills inventory referenced in the MIT action item and other methods for collecting and sharing institutional information, including internal organizational "best practices," *e.g.*, best practices for monitoring grant recipients.⁴ Tools that make such information accessible would benefit new hires and help components build capacity and enhance their ability to achieve their business objectives. They would also help mitigate the loss of staff that take other positions or retire. The Department's human capital plan

⁴ As part of its human capital planning work, GAO has identified several ways in which knowledge management tools can be used; including supporting knowledge sharing, enhanced professional development, and improving recruitment and retention. GAO Power Point Presentation on "Knowledge Management," April 12, 2004: <http://www.gao.gov/cghome/km/tsld019.htm>.

does not yet articulate an overall strategy with respect to knowledge management nor provide specific guidance or suggestions to the individual components about the ways in which knowledge management tools such as these can help support their workforce or succession planning efforts. Such information would be a very useful addition to the human capital plan.

Some of the Department's 19 Principal Offices have initiated knowledge management activities that do increase their ability to share information and build capacity. Of the 19 offices we surveyed, nine indicated to us that currently they are supporting one or more such activities. We interviewed staff in those nine offices about these projects. From these interviews, it was apparent that only eleven of the seventeen projects identified had actually been implemented. Four projects that have been implemented or are ready to implement are discussed in detail below. All of these projects were developed and three have been implemented with little or no capital investment by the component. A chart showing all of the KM projects that have been implemented or are under development is attached at Appendix A.

Office of Civil Rights (OCR)

Communities of Practice/Issue Networks OCR receives over 5,000 complaints a year and monitors about 1,000 cases at a time. OCR has 12 regional offices, all of which conduct investigations. With this dispersed workforce and the volume of work to be completed, coordination between the offices and headquarters and consistency in the application of legal standards and the development of resolution agreements are an ongoing concern. To help address these issues, OCR created several "Issue Networks." These networks were established around key program areas and each group includes staff from each regional location and headquarters. According to OCR, the networks have facilitated communication and coordination across the organization and have helped build staff capacity around each issue area.

Office of Postsecondary Education (OPE)

Tracking System and Policy Database (awaiting full implementation)

Forty percent of the OPE workforce is eligible to retire in the next five years. To address these pending departures, OPE has initiated efforts to put the history of the various OPE programs and the guidance previously provided over the years in a searchable and easily accessible system. Most of what is available now is in paper form and only certain individuals know where some documents are retained.

OPE's goal is to make the database searchable and available on the Intranet, so that it will be accessible to all Department offices. According to OPE, when operational, the system will reduce research time, improve consistency in the Department's dissemination of information and strengthen the integrity of the Title IV programs by creating a permanent record of the historical guidance it has given.

Principal Office Intranets

Twelve of the 19 principal offices in the Department have active Intranet sites. While such sites are used for many purposes, several of them include information about "how

things work” and include other vehicles for information sharing and capacity building within the organization. For example, some sites include discussion boards for exchanging quick answers and solutions to problems. Of these sites, there is a wide range of what tools and information are available and utilized. (See Appendix B for a chart summarizing the current Intranets in use and the tools they have available for employees.)

National Center for Education Statistics (NCES)

NCES Members’ Site

NCES is mandated by Congress to collect, analyze and report complete statistics on the condition of American education as well as international education activities. To better share information with its employees and some contractors, NCES developed a members Internet site. The site was developed by the NCES Webmaster and a contractor and operates, according to NCES at a negligible cost. The site facilitates information sharing by allowing members to make requests to the Webmaster for updates, information, or changes on the NCES public Internet site (all saved electronically) and document sharing of published and internal documents

Objective 2: Reviews of exemplary activities from other federal agencies

We interviewed three different agencies—NASA, Labor and State—about the KM initiatives at their respective agencies. We selected these agencies because they appear to be in the forefront of the Federal government’s implementation of KM. Below is a summary of some of some projects undertaken by these Departments that were developed and implemented with limited financial investment and that might be useful as part of a workforce or succession plan.

National Aeronautics and Space Administration (NASA)

NASA has been practicing KM on a Department level for nearly five years and has a wide range of programs. The agency identified two projects that required little to no financial investment—“storytelling” and a partnership with human resources.

Sharing Best Practices through Storytelling

NASA has eleven major centers across the United States. While there are various projects in different areas within the organization, some of the same problems and issues arise from one project to the next. In order to avoid resolving the same problem each time it arises, NASA decided to implement what it described as “storytelling,” a process that entails periodically pulling together project managers to share best practices from different projects.

Partnership with Human Resources

NASA wanted to reward people for participating in knowledge sharing projects, but wanted to use the system that was already in place. NASA decided that instead of adding new awards to reward people for participating in KM initiatives, they would partner with human resources to change the criteria for certain awards to emphasize those traits they wanted people to perform—such as mentoring,

sharing ideas, etc. The benefit of this partnership was that it allowed the entire organization to come into alignment on the importance of knowledge sharing while working within the current system and current budget.

U.S. Department of Labor (Labor)

Workforce Connections™, www.workforceconnections.dol.gov

About three years ago, Labor began a 21st Century Initiative. One of the main goals of this initiative was to simplify the way people create, distribute and manage knowledge sharing throughout their respective organizations. This led to the development of Workforce Connections™, a set of free web-based tools that can easily be used to build and maintain: 1) communities of practice websites, 2) traditional websites, 3) on-line courses or presentations, 4) knowledge repositories, and 5) online coaching.

Since content and presentation are separately built within these tools, creating separate versions (*i.e.*, supervisor training that is slightly different from non-supervisor training) is faster and cheaper. In addition, if content in these different versions changes, presumably one update is sufficient to change all versions. Below are some examples of how Workforce Connections™ has been implemented in other Federal agencies to help manage both external and internal knowledge:

Smithsonian National Zoo

Across the country, zoo veterinarians were encountering unique injuries and illnesses within their animal populations. While cases existed nationwide, there was no central repository of information that a veterinarian could turn to when treating these exotic animals. The Smithsonian National Zoo decided to create a Community of Practice Portal, ZooVet, for knowledge exchange about exotic animals. This site currently houses case histories, pictures and x-rays that document animal cases. This website allows very specialized knowledge and experience to be shared among a vast group of people in order to provide timely, effective and proper care to the nation's zoo animals.

Occupational Safety and Health Administration (OSHA)

OSHA wanted to create a six to eight hour online training on workplace violence. The training needed to be 508 compliant and Sharable Content Object Reference Model (SCORM) conforming. The estimated contractor time and cost was approximately \$250,000 and ten months to develop. Through Workforce Connections™ they were up and running in two and a half months, with no yearly maintenance cost, and saved between \$25,000 and \$35,000 per hour of training, due to the simplicity of the software and the fact that it was readily available.

U.S. State Department (State)

In July 2001, the State Department developed a knowledge management tool called Ask Admin. The Center mined a pre-existing listserv and came up with a list of frequently asked administrative questions and then brought in subject matter experts to answer them. Any State Department employee with access to the Department's internal Intranet can use

the system and while according to State there was some initial resistance, mainly among subject matter experts who did not want to let go of the knowledge they possessed, the tool is now being widely used. According to their estimate, the cost of implementing the new system was about \$30,000.

Conclusion:

The Department administers an annual budget over \$63 billion through different programs, grants and loans. In order to effectively manage this budget and deliver the highest quality of service, knowledge sharing will be instrumental in maintaining and exceeding its current level of service. Finding ways to better share information across the Department and within individual components, at a minimal cost, will become increasingly important as the number of people served by the Department continues to grow and the number of employees leaving through retirement continues to grow.

The Department has developed the ConnectED site which shares administrative information and the “What Works Clearinghouse” that shares information about good educational practices, two of the objectives identified by the MIT. The Department has not developed an inventory of employee skills or as part of its human capital plan, articulated a knowledge management strategy or offered the principal offices specific knowledge management tools to help support their workforce or succession planning efforts. Individual offices have implemented or developed some specific tools that might be useful in this regard. In addition, we were able to identify some relatively inexpensive initiatives that have been implemented in other Department that could be adapted for use in ED.

Methodology:

As part of our review, we interviewed Department employees recognized as participants in, or organizers of, KM initiatives. We also interviewed contacts at three Federal agencies—National Aeronautics and Space Administration (NASA), the U.S. Department of Labor (Labor) and the U.S. Department of State (State)—as well as reviewed the Department’s KM working group report from 2002.

Departmental Response

This report was issued in draft and submitted to the Department for comments on November 27, 2004. No comments were received.

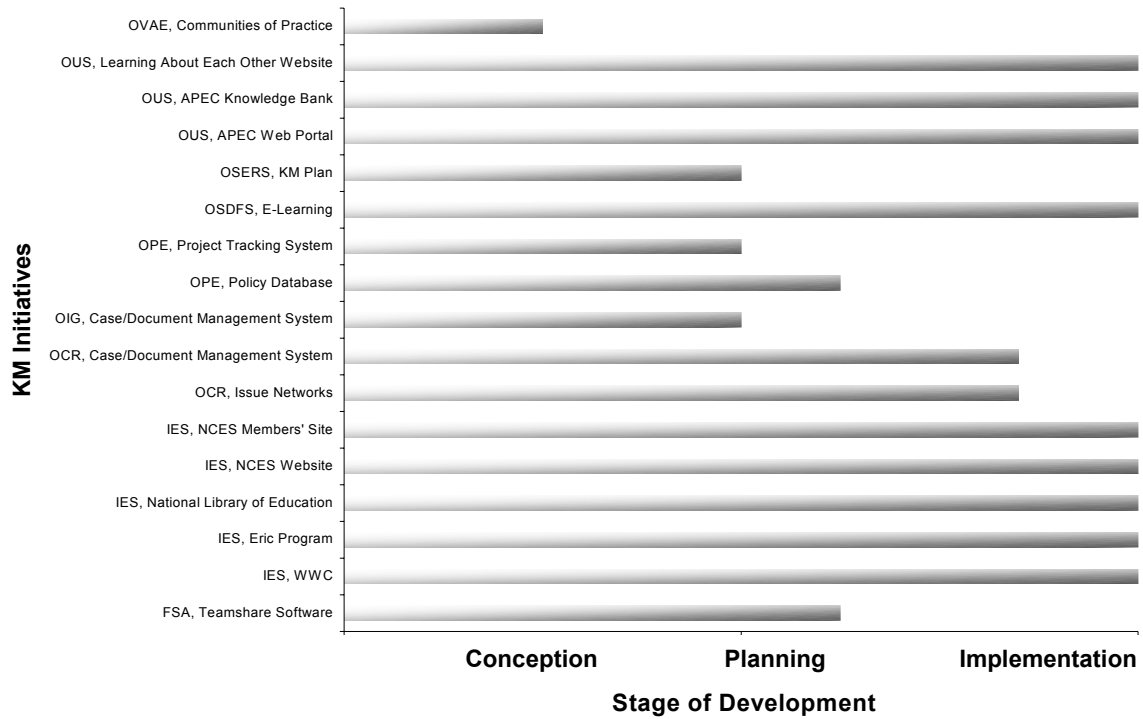
Administrative Matters

This inspection was performed in accordance with the President’s Council on Integrity and Efficiency Quality Standards for Inspections (1993).

We appreciate the cooperation given to us during the inspection. If you have any questions or wish to discuss the contents of this report, please call me at 202-245-7029 or Deb Schweikert, Director, Evaluations and Inspections Division at 202-245-7026. Please

refer to the control number in all correspondence relating to this report.

Appendix A: Department KM Initiatives and Status



Appendix B: Principal Office Intranet Sites

Principle Office	No Intranet	Deliver Training	Publish info/news	Manage Documents	Automate Work Flows	Discussion Area	Corporate Yellow Pages
CFO			●				
CIO			●				●
FSA		●	●		●	●	●
IES	●						
OCR			●	●	●		●
ODS/OUS	●						
OELA	●						
OESE			●				●
OGC			●				●
OIG		●	●		●		●
OII	●						
OIIA			●		●	●	●
OLCA	●						
OM			●		●		●
OPE			●				
OS	●						
OSDFS	●						
OSERS			●				
OVAE			●				●