NSDI-related Training Materials Development

Recommendations and Resources for Stakeholder Subject Matter Experts

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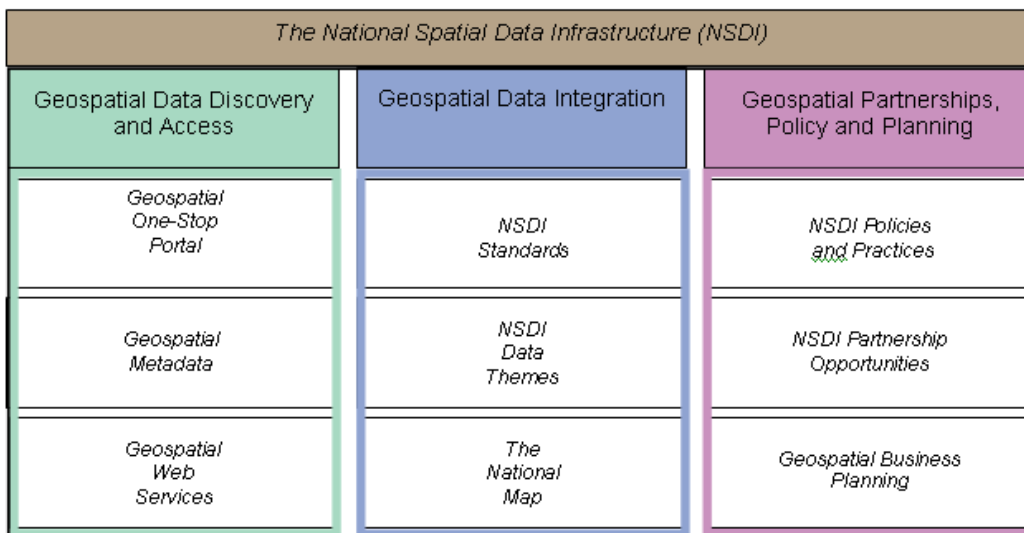
Purpose

This document is provided for individuals developing NSDI-related training materials for a program or project external to the NSDI Training Program. The recommendations and resources were compiled with the understanding that while the training materials developed for these projects must first address project-specific objectives and deliverables there is an opportunity to coordinate content development so that it may also support the NSDI Training Program. Project/program managers are encouraged to review the recommendations and resources below and implement those that best support both their own project and that of the broader NSDI Training Program.

NSDI Training Program Background

The objective of the NSDI Training Program is to provide stakeholders a coordinated, expandable set of training materials that address the full range of NSDI implementation and initiatives. The materials are intended to support both workshop instruction (PPTs) and self-paced online instruction. The program goal is to empower the stakeholder community to take a more active role in NSDI training and reduce the burden on FGDC and USGS staff. More information for the NSDI Training Program is available at: http://www.fgdc.gov/training/nsdi-training-program/online-lessons

NSDI Training Program Curriculum

The NSDI Training Program Curriculum is organized into three learning tracks as illustrated below. Each track contains learning modules for various NSDI components. The modules will be composed of individual lessons.

NSDI Training Program Curriculum

Scoping Content
When determining the scope of content needed to address the training project objectives, determine if there are existing training materials that you can either incorporate or build upon. ***Efforts to build upon existing NSDI Training Program materials and to coordinate with other related training material development projects are especially encouraged so that funds are used to extend, rather than duplicate, content***

Recommendations
- Identify the NSDI Curriculum Track and Module to which your lessons will apply and cite the Track/Module in progress reports
- Review existing relevant training materials developed by other Stakeholders and the FGDC to use as resources. Materials can be viewed at:
  http://www.fgdc.gov/training/training-materials#fgdctraining
- Review existing NSDI Training Program Online Materials to determine if you can utilize the existing materials and develop your content to **expand upon the existing content**. Materials can be viewed at:
  http://www.fgdc.gov/training/nsdi-training-program/online-lessons
- Consult with your CAP Category Lead or other sponsor to explore options to coordinate with related projects. Options may include, but are not limited to:
  - shared review of project status reports and deliverables
  - regular telecons to discuss progress and issues
  - coordinate and align project deliverables

Learning Objectives
Quality content development is dependent on the development of a strong set of learning objectives. While some dismiss learning objectives as superfluous, when developed to truly determine the *actions* that a student should be able to perform after completing the lesson, these objectives serve as a:
- general outline for content development
- foundation for student testing
- valuable means of measuring lesson success.

The key to the development of learning objectives that truly support lesson development and assessment, is the use of assessable, vs. ambiguous, action words.
After the lesson the student can:

Assessable:	Ambiguous:
explain	understand
compare	know
list	believe
identify	appreciate
create	discover

Recommendations:
- Review the Subject Matter Expert (SME) Learning Objectives and Activities Handouts available at:
  http://www.fgdc.gov/training/nsdi-training-program/workspace/SME/SMEWorkshopWorkbookDocs/LearningObjectives/
- Review and incorporate the NSDI Stakeholder learning objectives identified as part of the *NSDI Training Program Requirements Analysis* available at:
  http://www.fgdc.gov/training/nsdi-training-program/workspace/RAdocs/NSDITraining_RequirementsAnalysisReport_20060701.pdf

Other Considerations

Slide Format

A MS PowerPoint template has been developed for the NSDI Training Program. While the template will not typically be directly applicable to the development of project-specific training materials, the outline and features may serve as a content development model.

- Review the NSDI Training Program MS PowerPoint template available at:
  http://www.fgdc.gov/training/nsdi-training-program/workspace/SME/NSDITrainPPTemplateSupporting/

Lesson Planning

Lesson plans can be used to effectively develop content, record speaker notes, and incorporate media, handouts and activities.

Recommendations
- Review the example lesson plan provided at:
  http://www.fgdc.gov/training/nsdi-training-program/workspace/SME/SMEWorkshopWorkbookDocs/NSDITrainLessonPlanExample/
- Review the blank lesson planning document lesson plan provided at:
  http://www.fgdc.gov/training/nsdi-training-program/workspace/SME/SMEWorkshopWorkbookDocs/NSDITrainLessonPlanForm/

Exercises and Activities

Exercises and activities are key to effective learning as they require students to absorb process, store and apply newly gained knowledge. When exercises and activities are developed to support lecture/presentation materials, knowledge retention is increase significantly.

Recommendations
- Develop activities and exercises to support content absorption. Ideas for activities include:
  - worksheets
  - games: adaptations of *Jeopardy*, *Deal or No Deal*, *Trivial* Pursuit
  - discussion questions and mock debates

Training material developers are strongly encouraged to develop and document exercises and activities that Ideas for activities include:

Assistance

Lynda Wayne (GeoMaxim) serves as the NSDI Training Program Manager and is available to:
- discuss the recommendations and resources presented above
- review draft materials
- assist in efforts to coordinate content development with the NSDI Training Program

Contact Lynda at:
Lwayne@fgdc.gov or Lwayne@GeoMaxim.com
828.254.9547