Instructional Methodologies

This document outlines the various instructional methodologies that can be used in professional development initiatives for the library community. For each methodology, the approach is named and described, potential advantages and disadvantages are listed, and best practices are suggested, along with "cautions" of practices to avoid.

The methodologies outlined on the following pages are:
- Instructor-Led Training
- Synchronous Online Learning
- Asynchronous Online Learning
- Self-Instruction and Performance Support
- Blended Learning

Methodology	Instructor-Led Training (ILT)
Description of Methodology	This methodology involves face-to-face in-person training delivered in a classroom, in the presence of an instructor or facilitator. The topical focus may be either hands-on use of a computer workstation (e.g., using the ILS) or academic-style lecture and discussion (e.g., FRBR concepts). This methodology may be used as a component in a "blended" approach utilizing alternative methodologies described below.
Potential Advantages	This methodology is appropriate when the following considerations are important: • A synesthetic experience is desirable -- visual, aural, reading, writing, kinesthetic • Flexible delivery in a variety of modes -- lecture, discussion, presentation, demonstration, hands-on, team-building • Presence of an "expert" is desired – "sage on the stage" • Human interactivity between participants and instructors/facilitators is desirable • Real-time instruction and feedback are important • Adaptability to different learning styles and paces • Enhanced group interaction/learning from each other • The content requires hands-on and/or demonstration to a significant extent • A controlled environment is desirable to improve focus, reduce distraction, and help with technological considerations (e.g., software, browser access, passwords) • The target audience is present (i.e., there is no cost or time advantage to avoiding travel) • High completion rates are important
Potential Disadvantages	This methodology is not appropriate if the following considerations present obstacles: • All participants must be physically present • Travel costs are prohibitive • Duration of training is likely considerable • Scheduling and logistics are difficult • Training would require time away from the job • Learning must be rolled-out to all employees simultaneously • Personalized or customized instruction is desirable • Different learning styles of participants is a key concern • Self-paced instruction is desirable

Methodology	Instructor-Led Training (ILT)
Best Practices	• Ensure that scheduling, registration, and logistics are easy • Provide clear and comprehensive written course material • State clearly the learning objectives, scope, and how Q&A and feedback will be handled • Employ positive public-speaking habits • Project with clear diction • Maintain engagement with participants • Strive to accommodate different learning styles and paces; use varying types of media, but have a purpose for each • Allow for group interaction/learning from each other • Maintain an effective balance of formality and casualness • Remember that you know the content well enough to teach it, but it may be unfamiliar or foreign to them • Consider carefully the appropriate level of detail • Delineate clearly topical transitions • Recap and reinforce frequently ("tell them what you're going to tell them -- tell them -- tell them what you told them") • Provide printed take-away(s) • Cite pagination when referring to written material • Keep to established guidelines for time; allow for a break • Rehearse!
Cautions	• Don't assume learners' ability to absorb quickly • Don't "overload" the content • Don't simply read bullets or text; your students are adults • Don't stray from set time guidelines (come early/stay late) • Avoid getting overly bogged down in detail • Don't let attendees dominate or play "stump the instructor" • Avoid under-the-breath comments; students will think they are missing a pearl of wisdom from the master • Don't debate the merits of suggestions when brainstorming; the goal is merely to solicit and group ideas

Methodology	Synchronous Online Learning
Description of Methodology	This methodology requires participants and instructors to be online at the same time. Lectures, discussions, and presentations occur at a specific hour. All participants must be online at that specific hour in order to participate. Examples of synchronous online learning include live chat and videoconferencing. This methodology may be used alone or as a component in one of various "blended learning" approaches that combines any of the six instructional methodologies described in this document.
Potential Advantages	This methodology is appropriate when the following considerations are important: • Real-time communication • Ability to reach large audiences at minimal expense • Reduction of travel time and cost
Potential Disadvantages	This methodology is not appropriate if the following considerations present obstacles: • Scheduling difficulties • Technical issues with audio and video • Increased equipment requirements • Lack of human contact • When hands-on work is important for effective learning/teaching • Participants with low self-discipline
Best Practices	• Give instructors reduced load and increased support to develop course materials • Plan for increased time for student interactions as compared to traditional courses • State clearly the learning objectives and scope and delineate course requirements • Provide clear and comprehensive written course material • Provide participants with continuous support, feedback, and closely monitor each participant's progress • Evaluate the success/failure of the course and meet participant concerns
Cautions	• Motivated participants to learn independently • Help participants to organize their time well • Make sure participants are computer savvy • Study best practices for teaching online

Methodology	Asynchronous Online Learning
Description of Methodology	This methodology allows participants to take a course on their own schedule. Instructors provide materials, tests, and assignments that can be accessed at any time. Participants may be given a timeframe during which they need to connect and contribute whenever they choose. The course can be carried out even when the participant or instructor is offline. Examples of asynchronous online learning include recorded webcasts, podcasts, discussion boards, email, social networking. This methodology may be used alone or as a component in one of various "blended learning" approaches that combines any of the six instructional methodologies described in this document.
Potential Advantages	This methodology is appropriate when the following considerations are important: • 24/7 access to course materials • Time to reflect on complex issues • Sessions can be recorded ahead of time and be reused • Access to knowledgeable instructors wherever they are • Lower bandwidth requirements • Course does not require simultaneous interfacing between the instructor and participant • Participants are able to follow the curriculum at their own pace without having to worry about scheduling conflicts • Participants are able to take their time with each lesson plan in the curriculum.
Potential Disadvantages	This methodology is not appropriate if the following considerations present obstacles: • Time and space distortion • Difficulty with discussion with large number of participants • Participants lack motivation to do the course work on their own • Instructors are unable to organize and provide training materials, tests, and assignments, and feedback on time • Subject of course requires interactive educational environment • Access to immediate help is needed during the course

Methodology	Asynchronous Online Learning
Best Practices	• Set clear expectations, learning objectives and scope • Provide clear and comprehensive written course material • Set regular times to be available by email or texting in real time • Monitor constantly the quality of the threaded responses and encourage active participation from all course participants • Provide discussion summaries on a frequent basis
Cautions	• Excessive static information posted on the course website may not contribute to greater learning • Prepare to spend more effort in course development and delivery • Requires increased planning, preparation time, as well as changes in teaching style

Methodology	Self-Instruction and Performance Support
Description of Methodology	This methodology involves the provision of a tool or other resource, ranging from print material to technology-supported, which provides just the right amount of task guidance, support, and productivity benefits, precisely at the moment of need. "Self-Instruction" refers to the use or consultation of instructor-led course material by individuals working independently outside of a classroom setting. "Performance Support" involves the provision of stand-alone learning which augments formal course material. PS has been described as "job aids on steroids." The distinguishing characteristic of this methodology is its availability at the "moment of apply", which could be at any time a user might seek it. Examples include: course materials for on-my-own learners; job aids; supporting documentation; policy statements; flowcharts; and electronic performance support systems (EPSS).
Potential Advantages	This methodology is appropriate when the following considerations are important: • Scheduling and registration are not required, and logistics are not a concern • Delivery does not require a "sage-on-the-stage" expert • Trainee needs to absorb and learn quickly not spend significant time on the effort • Self-pacing is desirable • The learning is task-focused on small nuggets of information • Training is immediately applied at the moment of need • The emphasis is on *performance -- doing*, not *learning* • Primarily, what is needed is the ability to "look it up" • Content development can be cost-effectively prepared once, and used as often as needed • Use of a variety of technologies is desirable – print, web-based, mobile, FAQ databanks, software applications • The most effective delivery is for learners to "pull" the information they need, when they need it. • Small nuggets are needed to augment formal training • Time away from the job is to be minimized (or eliminated) • Less-is-more "training" is preferable to more-is-more "education" • Reduction of cognitive load and need for memorization are desirable

Methodology	Self-Instruction and Performance Support
Potential Disadvantages	This methodology is not appropriate if the following considerations present obstacles: • Need to ensure that learners have made use of the learning • A mechanism for feedback/follow-up is needed or desirable • A human "sage on the stage" is advantageous for delivery • The learning needs to convey a framework and "big picture" • The learners are less experienced in the topical area (i.e., this is not for "basic training") • There is a reasonable fear that skills will be lost over time if employees rely overly on being able to "look it up" as needed
Best Practices	• State clearly the purpose, relevance, and how it is to be used • Prepare clear and self-explanatory material – in whatever form it exists • Review material for accuracy and currency regularly • Provide a channel for feedback and questions • Make the instruction and support easily available • Advertise its availability • Keep it simple, small, and narrowly-focused • Consider carefully the best uses for this methodology • Present the information or support in the most effective format, appropriate to its use • Embed PS in the workflow whenever possible (e.g., <F2> in Voyager, pop-up "Help" when filling out a form)
Cautions	• Don't provide more detail than necessary (if you find yourself doing so, this methodology is not appropriate) • Don't prepare it once and then forget about it • Avoid the urge to provide more broadly-focused "education" • Don't feel the need to create anything more elaborate than a simple job aid • Avoid leaving anything implied or assumed or needing explanation by an instructor

Methodology	Blended Learning
Description of Methodology	Blended learning has been defined as a **formal** education program in which a student learns at least in part through online delivery of content and instruction with some element of student control over time, place, path, and/or pace and at least in part at a supervised classroom setting away from home. In broader terms, the term blended learning may be used to describe any combination of methodologies described in this document. The online delivery component may include synchronous or asynchronous methodologies. It may include a combination that allows students to work independently online asynchronously and interact with the instructor online synchronously at specified times. A variety of resources such as text, video clips, blogs, journals, discussion threads, PowerPoints, literature, web links, podcasts, and wikis may be used to provide different perspectives to enhance student experience and learning. The classroom component provides a face to face meeting with the instructor and fellow students. The face to face sessions may be used to compliment and build upon online components and assignments. For example the face to face sessions provide opportunities for complex discussions that are difficult to carryout online, introduction of new assignments, and the application of reading material for class exercises, facilitated discussions, lectures, group projects, etc.
Potential Advantages	This methodology is appropriate when the following considerations are important: • Providing face-to-face experiences that compliment online delivery of content and assignments • Providing students more opportunities to contribute to class discussions online than is possible in classroom settings • Providing multiple visual, textual, kinesthetic and/or auditory activities to enhance student learning • Use of a variety of media to enhance learning

Methodology	Blended Learning
Potential Disadvantages	This methodology is not appropriate if the following considerations present obstacles: • The online components used in some formal educational settings are highly dependent on online learning management tools to post schedules, assignments, facilitate discussions, etc • Requires the students to have proximity to the brick and mortar classroom or face-to-face meeting place, if this is a component • Requires the students to have adequate technological skills and equipment for the online component
Best Practices	• State learning objectives and scope clearly • Integrate course activities clearly with learning objectives • Create a course syllabus that identifies and clearly delineates the role the online environment will play in the total course • Plan to address accessibility issues throughout the course • Create a set of tasks by unit, module or week to keep on track during the teaching phase • Set up a regular schedule of communications and reminders to students • Use a variety of multimedia elements and/or learning objects that are relevant to student learning throughout the course
Cautions	• Students need to have a clear understanding of expectations and clear directions to stay on track with the course requirements • Keep the organization of the course and schedule simple • Provide ample opportunities for interaction and communication student-to-student, student-to-instructor and student-to-content as communication is key