Welcome to the eLearning Toolkit. Also, please visit K4Health's eLearning page for links to eLearning courses.

**What is eLearning?**

eLearning uses technology to create a virtual classroom where learners from any location can access information and learn about new topics, technical guidance, and program practices.

eLearning includes Web and computer-based learning, virtual classroom opportunities, and online workspaces for discussion and collaboration. Incorporating eLearning into an organization's capabilities can expand the reach of its information to audiences who have limited access to traditional education and training opportunities. It can also provide a cost-effective way to train staff around the world. Learners can access asynchronous eLearning courses when it is most convenient for them and complete courses at their own pace—an ideal situation for busy professionals. ELearning methodologies are especially useful in countries with limited higher education opportunities—for example, more than half of developing countries do not have postgraduate public health programs.

**Benefits of eLearning**

- Addresses specific training needs and learning styles, allowing individuals to learn in a range of ways.
- Some eLearning models allow learners to assess their knowledge before and after training.
- Delivers training right to the desktop, online or offline, making it easier to incorporate learning into individual schedules. For example, offline versions of courses can be made available on flash drives and CD-ROMs.

This toolkit was designed using Knowledge Management principles including capturing and organizing the explicit knowledge in order to maximize effectiveness and efficiency. Selected resources are presented here to help you design, implement, and evaluate an eLearning initiative.

**Trends in eLearning**

eLearning has evolved into a credible information delivery option with a history of growth. Elearning can be especially useful in countries with limited higher education opportunities. ELearning growth varies greatly by region, ranging from 5-10% per year in Africa, the Middle
East, and North America to almost 35% per year in Asia (Adkins 2010). Some of these differences are attributable to internet access, or lack thereof. eLearning has shifted from limited end user interaction to remove learner interaction. eLearning continues to grow in popularity due to the availability of easy-to-use courseware and the spread of more reliable connectivity and bandwidth.

Since 2005, the K4Health Project has served as the manager of the USAID Global Health eLearning Center. From this experience and our lessons learned, we have developed a number of reference tools to assist a project and/or organization interested in beginning an eLearning activity.

This eLearning Toolkit is a collection of key resources that K4Health has either developed or found useful in informing its own eLearning activities and its recommended course development process. Please feel free to adapt and use these tools as you see fit. We always like hearing from others as to what works best for them and are happy to add your recommendations to the collection.

Strategy Development

Developing a strategy for rolling out an eLearning program is vital for success. The approach you take to incorporating eLearning into your organization can be driven by many factors. Suggested steps to developing a strategy include:

- Identify current training and educational needs
- Brainstorm a 2, 5 and 10 year capacity building vision that incorporates eLearning
- Organize your available resources ? human and capital ? that you will need to achieve immediate and long-term goals.
- Assess your team based on the skill sets needed to implement your strategy
- Review and select appropriate technology(ies)

Learning the basics about the most common models is a good place to start.

<table>
<thead>
<tr>
<th>Purpose Models</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Instructional eLearning</strong></td>
<td><strong>Informational eLearning</strong></td>
</tr>
<tr>
<td>• Changes learners knowledge and skills for a specific purpose</td>
<td>• Increases comprehension</td>
</tr>
</tbody>
</table>
• Allows for change but requires revisit of instructional design

• Highly interactive, usually facilitated in some form

• Who, what, when, where, why

---

**Time-Based Models**

<table>
<thead>
<tr>
<th>Synchronous eLearning</th>
<th>Asynchronous eLearning</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Occurs at the same time, different places</td>
<td>• Self-paced</td>
</tr>
<tr>
<td>• Requires facilitation</td>
<td>• Learning can be 24/7</td>
</tr>
<tr>
<td>• More learner-instructor feedback loops</td>
<td>• Less level of effort to maintain</td>
</tr>
</tbody>
</table>

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The documents below provide additional information on choosing a strategy.

**Resources:**

- **CDC’s E-learning Essentials: A guide for creating quality electronic learning**

CDC’s E-learning Essentials Guide was developed for course developers and training decision makers who are new to e-learning. The guide aids in the creation of quality e-learning by identifying key instructional components and summarizing what they are, why they are important, and how to use them most effectively. The guide does not provide step-by-step instructions to create e-learning. For best use of the guide’s information, some experience in education, adult learning, or instructional design is recommended.

- **K4Health Blended Learning Guide**
The objective of this Blended Learning Guide is to explaining how eLearning courses can be combined with other learning activities to increase application of new knowledge in the workplace. Practical examples of how to do so are included for trainers and individual learners.

The Guide gives recommendations about how the eLearning courses can be used to enhance face-to-face, online, and blended training and performance support approaches by helping participants acquire and apply new knowledge and comprehension.

• **Introduction to eLearning**

This introduction to eLearning explains what eLearning is, why use it, benefits and limitations and best practices.

• **E-Learning Methodology - A Guide for Designing and Developing e-learning courses**

The purpose of this guide is to provide detailed guidance on designing and developing an e-learning course for trainers and instructional designers who are new to e-learning design. It also provides basic concepts and information on the processes and resources involved in e-learning development, which might be of interest to capacity-development managers.

**Selecting Your Tools**

There are many eLearning tools, each with unique functionality. The website articles listed below will help you think through your choices.

• Five Key Considerations for Selecting an Authoring Tool

• Five Things to Consider when Choosing eLearning Authoring Tools

• E-Learning Authoring Tool Comparison

•

Top eLearning Authoring Tools Compared ? A Matrix
An alternative to adopting and using eLearning tools of your own is finding a partner with a similar mandate and target audience who is already implementing an eLearning strategy. A partnership could provide you with access to eLearning tools and the know-how to use them.

**Importance of Selecting Appropriate Technology**

The approach you take to incorporating eLearning into your organization can be driven by many factors. Who are your target audiences?

- Busy professionals?
- Trainers?
- Ministry of Health officials

Where and how do they work? Are they:

- Desk or field based
- Able to access a computer and the internet

eLearning can be cost prohibitive in certain circumstances but often the return on investment outweighs the initial cost.

Most research on eLearning has focused on developing countries, or rather countries that have good connectivity. As the need for more timely technical information increases so does the need for this information to be more widely available and so eLearning approaches are adapting to less connected parts of the world.

Learners do not always need a reliable internet connection to take an eLearning course. If internet connectivity is an issue for your audience, consider other methods like CD-ROMs or USBs with the course preloaded. This is something to explore with your team during the strategy development process.

**Course Development**

Excellent trainings are usually time-consuming both to prepare and deliver, but the results often justify the means. In developing eLearning courses, try to incorporate as many of the principles outlined in the following steps for course development:

- Utilize **Instructional Design**
- Define **Roles and Responsibilities**
- Incorporate **Bloom’s Taxonomy**
- Write for the Web
Conduct Technical Review
Impelment Quality Assurance Testing
Carry out Pilot Testing

The more principles you are able to incorporate, the greater the chances for a positive outcome.

A course based on previously generated content will typically take 6-9 months to complete since team members often cannot devote 100% of their time to course development. This timeframe can be sped up or slowed down based on the team’s level of effort. Download and review the Project Timeline template below to help you plan key activities in the development process.

Resources:

- **Guide to Authoring a Global Health eLearning Course**

  The Global Health eLearning Center offers a menu of courses that learners can use to expand their knowledge in key public health areas and to access important up-to-date technical information that USAID public health professionals should know. The primary audiences for the Learning Center are PHN officers and FSNs at USAID missions around the world. However, staff at USAID/Washington, its Cooperating Agencies (CAs), and other partners may also benefit from the Learning Center.

  This Guide details six phases:

  Phase I: The course development process

  Phase II: The course design process

  Phase III: Working in the online content management system (CMS)

  Phase IV: The course review and approval process
Phase V: Publish the course

Phase VI: Evaluate and maintain

- **Introduction: Developing an eLearning Course**

This presentation provides an introduction to the process of developing an eLearning course.

- **Example: Project Timeline**

In this example project timeline, you will find a comprehensive list of activities to help lead your eLearning team through the creation of a course from start to finish.

- **60-Minute Masters for SMEs**

This short course provides subject experts and many others with the skills needed to design engaging, rapid e-learning materials for use in the workplace. To hear the audio version of the course, you’ll need to register (free of charge) at the 60 Minute Masters site.

**Instructional Design**

*Instructional design methodology* is the foundation of a great eLearning courses. Instructional design is critical to create eLearning that is concise, interactive and compelling.
When developing content for eLearning courses, you should take the following seven steps.

1. Define primary and secondary audiences
2. Develop purpose statement
3. Define high level learning objectives
4. Define detailed learning objectives for each aspect of course
5. Compile key resources
6. Begin writing content
7. Develop learning assessments (quiz questions, games, etc.)

Consider a Learner's Motivation

Creating good course content involves motivating your learners. There are several reasons why the learner might access eLearning courses:

- Interested in subject matter
- Recommended by a friend
- Required as part of course work
- Mandated by employer

While these are reasons the learners should take the course, the reasons for learning are different. The motivations for eLearners to learn include:

- Benefits: positive gains as a result of learning and using course material
- Consequences: negative impacts of not learning and using course material

Using humor and drama are great ways to keep the learner motivated to learn once they have started a course. Humor is a great way to relate difficult or sensitive content while drama, and the strong emotions it often elicits, can keep eLearners engaged.

Develop Relevant and Clear Learning Assessments

Criterion Referenced Tests are the most commonly used measurement of learner's knowledge acquisition. These types of tests link directly to the expectations laid out in the learning objectives. A great way to ensure that the test questions are linked to the learning objectives is to write them together.

Resources:

- Learning for Performance A Guide and Toolkit for Health
Worker Training and Education Programs

This manual presents Learning for Performance, a systematic instructional design process based on IntraHealth’s experience in designing reproductive health and HIV/AIDS training and performance improvement programs over the last 27 years in countries around the world. Work in human resources for health, especially through the Capacity Project, also informs this document.

This manual is intended for individuals and teams who are developing or strengthening education or training programs as a component of performance improvement or human resources for health programs—instructors; trainers; instructional designers; curriculum developers; supervisors and training managers. While this guidance was created primarily to facilitate the work of those who are developing learning interventions, it can also be used to teach the Learning for Performance process.

Guide to Writing Competency-Based Training Materials

This guidebook is written as an application focused reference for novice and veteran trainers, working in the not-for-profit sectors, who develop or deliver competency based materials or learning activities. It is recognised that many people who access this guide will have been exposed to a good deal of the content, so in many instances using this book will serve as a means of refreshing your knowledge. In other circumstances you will be looking for specific information or guidance on an aspect of training development or delivery. Whatever your need, by using the comprehensive table of contents you should be able to quickly find what you are seeking.

Roles and Responsibilities

To implement the average eLearning strategy, staff will be required to fill several roles with the following responsibilities:

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course developer(s) (also referred to as course author(s))</td>
<td>Person(s) responsible for writing all course content</td>
</tr>
<tr>
<td>Role</td>
<td>Responsibility</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>-------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Course development managers</td>
<td>• Manages, monitors, and tracks all stages of the course development process</td>
</tr>
<tr>
<td></td>
<td>• Organizes technical material provided by content developers (e.g., graphics, illustrations, charts, reference citations, and glossary terms)</td>
</tr>
<tr>
<td></td>
<td>• Converts information from document format to eLearning format with support and approval from content developer(s)/course author(s)</td>
</tr>
<tr>
<td></td>
<td>• Provides IT support for transferring the content into the online course authoring tool</td>
</tr>
<tr>
<td>Technical reviewers</td>
<td>Technical expert(s) responsible for reviewing the accuracy of the technical content of the course (these individuals should NOT be involved in the initial writing of the course content)</td>
</tr>
<tr>
<td>Quality Assurance Testing (QAT) editor</td>
<td>Person responsible for reviewing the spelling, grammar, and formatting of the course</td>
</tr>
<tr>
<td>Pilot Tester</td>
<td>Subset of general user base responsible for reviewing the technical content and providing feedback on access</td>
</tr>
<tr>
<td>Final approver</td>
<td>Person responsible for ?signing off? on the course (often someone is nominated among the course developers)</td>
</tr>
</tbody>
</table>

**Bloom's Taxonomy**

Bloom’s Taxonomy provides an important framework for instructors to use to focus on higher order thinking. By providing a hierarchy of levels, this taxonomy can assist instructors in designing performance tasks, crafting questions for testing a learner, and providing feedback on learner’s work. The Taxonomy was revised in 2001 by editors Lorin W. Anderson and David R. Krathwohl.
This resource is divided into different levels each with **Keywords** that exemplify the level and questions that focus on that same critical thinking level. **Questions for Critical Thinking** can be used to develop all levels of thinking within the cognitive domain. The results will be improved attention to detail, increased comprehension and expanded problem solving skills. Use the keywords as guides to structuring questions and tasks. Finish the Questions with content appropriate to the learner. **Assessment** can be used to help guide culminating projects. The six levels are listed in the graphic above.

**Resources:**

- **K4Health Guide to eLearning: Bloom's Taxonomy**

  This resource is divided into different levels each with **Keywords** that exemplify the level and questions that focus on that same critical thinking level. **Questions for Critical Thinking** can be used to develop all levels of thinking within the cognitive domain. The results will be improved attention to detail, increased comprehension and expanded problem solving skills. Use the keywords as guides to structuring questions and tasks. Finish the Questions with content appropriate to the learner. **Assessment** can be used to help guide culminating projects. The six levels are listed at the right.

- **Pre-Design Assumptions Worksheet for e-Learning**

  This worksheet is designed to help you think through issues of audience, objectives, and design element.

  1. **Who's it for? (Audience)**

     Things to ponder: language level (i.e., Jargon & acronyms OK? Awareness vs. knowledgeable or technical? Assumption of existing knowledge), comfort with technology (i.e., this will affect your design choices? text vs. icons, etc.).
2. What's its job? (Informal objectives that will be used to write formal learning objectives).
   Things to ponder: WHO needs to perform WHAT/HOW under WHICH circumstances?
   (this is a formula for a learning objective)

Writing for the Web

Here are some simple suggestions for writing content in a way that is appealing to audiences
who are accessing information online. In some cases, the course authoring tool provides
templates for entering content. Other situations require the course developer to administer
specific guidelines in order to maintain a style that is appropriate for a certain audience.

- Keep text short and concise. Avoid wordiness (i.e., get rid of unnecessary words, repetitious
  phrasing, and unnecessary information).

- Manage page width and length so that the user does not have to do much scrolling.

- If heavily detailed information is needed, insert it as a linked document or link to it on the Web.

- Avoid long paragraphs. Break up text into small, easy-to-read chunks, using spacing or
  bullets. Note: Don't overuse bullets; sometimes spaces are just as effective.

- Spell out abbreviations or acronyms the first time they are used in each stand-alone session.

- Keep spelling and abbreviations consistent throughout.

- Use simple terminology or define terms that may not be universally known.

- Present information in a variety of formats. Intersperse graphs, charts, labeled drawings, and
  sidebars with straight text. Use appropriate photos to complement the text, but be sure the
  photo is relevant.

- Select words carefully to convey precise meaning. Avoid overuse of pet words and phrases.

- Keep sentences short, but vary their structure.
Space text so that it breaks cleanly around graphics.

- For easier reading, double-space bullets that are more than one line in length.
- Include sources for graphics and reference-based information. Get permission to use graphics that are not in the public domain.

**Style Considerations**

There is no specific style that must be adhered to when creating an eLearning course. However, there are some aspects to consider during development and then again during the review and QAT phase. In general, it is best to start with the standard template settings that are used in the course authoring system. If necessary, settings can be modified during the review phase.

Course development team members should settle on a color scheme and stylistic tone before sending the course out for technical review.

**Font**

Font size and style should be standardized throughout the course (including graphics). No more than two different kinds of fonts should be present. Fonts should be easy to read (Arial and Verdana are examples).

**Graphics (including photos, multimedia, and video)**

Graphics should be designed by a single graphic designer in order to maintain consistency throughout the development process. Course color schemes should be followed when possible. Pages that contain both graphics and text should be formatted uniformly throughout a course.

Audio and video should only be used if it is determined that it adds to the value of the learner's educational experience.

**Citation**

Content that is taken from other sources should be properly cited. This includes photos and graphics as well as text.

**Glossary terms**

Unfamiliar terms should be defined in a glossary, as should acronyms and organizations. Acronyms should also be written out in their entirety the first time they are mentioned.
Technical Review

All eLearning courses should go through an extensive peer review process administered by the course developer(s). It is the course developer’s responsibility to make sure the course is thoroughly and adequately reviewed.

The review process is the least predictable part of course development, so it is important to start planning for it early.

When you begin writing your course, it is advisable to compile a list of potential reviewers. We recommend that you identify at least 2-3 individuals and no more than 5-7. You should inform them in advance that you are working on a course and will eventually be asking for their feedback.

- Compile your list of potential reviewers early.

- Contact your reviewers early.

- Involve all key experts when possible.

- Let your reviewers know exactly what kind of feedback you are looking for.

- Set deadlines for your reviewers to get back to you, realizing that you most probably will have to extend that deadline.

- Send reviewers gentle reminders if they do not get back to you.

It is important to organize the feedback provided by technical reviewers within the course authoring and review system if at all possible. However, if it is difficult for a technical reviewer to provide feedback online, reviewers can provide written feedback.

After the reviewers have sent in their comments, it is the course developer’s responsibility to compile, accept, or disregard the comments, and make the necessary changes to the course.

After the review process is complete, the course will be ready for the final Quality Assurance Testing.

Resources:
Sample invitation to course reviewers

A letter of invitation to the technical reviewers is important to establish their responsibilities and the procedures for providing feedback.

- Checklist for Technical Review

The purpose of the technical review is to ensure technical accuracy and relevance of the course content. The tasks listed in this document are intended to guide the review of an eLearning course.

Quality Assurance Testing

Prior to publishing your course, a quality assurance test (QAT) should be completed. This testing includes a comprehensive copyedit, verification of consistent formatting, checking that hyperlinks work and that references are sourced properly.

Resources:

- Checklist for Quality Assurance Testing (QAT)

This checklist is provided as a guide to the key tasks involved in QAT. The specific tasks, order of completion, and persons performing each task will vary from course to course.

Pilot Testing

It is important to test your eLearning course with a sample of the target audience. Once the pilot testers have engaged with the course, an easy way to collect their feedback is through an online survey. An invitation letter template and survey template appear below.

After the feedback is collected, schedule time to incorporate necessary changes into the course.
This aspect of course development is crucial but often overlooked in the planning process.

Participants at the Essential Package eLearning Launch Event, Dar es Salaam, September 2013. Photo Credit: Colleen Farrell/Save the Children

Resources:

- **Invitation Letter to Pilot Testers - Template**
  
  Use this template to help write an invitation to members of your target audience to act as pilot testers.

- **Sample eLearning Pilot Test Survey**
  
  This sample survey can be used to collect feedback from course pilot testers.

**Launch and Monitor**

Now, you are ready to launch your course. Once the course is published online, it doesn't mean that your work is done. You now need to consider promoting it, monitoring its uptake and learner's satisfaction with it, and planning for revising it, as needed.
Promotion and Dissemination

The **Goal of a Promotion and Dissemination (P&D) Plan** is to help you expose the target audience to the availability of eLearning courses.

It is important to first think about the **target audience**:

- **The primary audience** is the intended beneficiary of the eLearning courses (example: medical laboratory scientists).
- **The secondary audience** would benefit from the course content but for whom it is not specifically designed for (example: medical laboratory technicians).
- **Additional audiences** may be partner organizations, funding agencies or government bodies who are interested in the course content.

In order to reach each audience, consider the **channels** that are available to you and will reach the intended audience, channels to consider include:

- **Listservs**: existing or new email lists
- **Websites**: your own and others that are devoted to the course content
- **Social media**: facebook, twitter, LinkedIn
- **Press**: TV, radio, newspaper
- **Face-To-Face**: in person meetings, regional and international conferences
- **Print Material**: banners, flyers, bookmarks, newsletters
- **eMaterials**: CD-ROMs of courses

Once you have thought about the channels you would like to use, create a plan for employing an **activity** through each channel.

For each channel, identify a timeframe for implementation and then identify indicators and targets.
to help you monitor your activities.

Your plan might look something like the example below. A template to help you create your own plan is also available.

<table>
<thead>
<tr>
<th>Channel</th>
<th>Activity</th>
<th>Date</th>
<th>Indicator</th>
<th>Target</th>
<th>Progress by Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radio</td>
<td>Write script, book radio airtime</td>
<td>Oct-Dec</td>
<td>Listeners</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td>Banners</td>
<td>Write messages, create and hang</td>
<td>Sep-Oct</td>
<td>Viewers</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td>Facebook</td>
<td>Write post, publish</td>
<td>Sep-Jan</td>
<td>Likes</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td>CD-ROMs</td>
<td>Identify vendor, determine where/how to distribute</td>
<td>Nov-Feb</td>
<td>Number of CD-ROMs</td>
<td>200</td>
<td></td>
</tr>
</tbody>
</table>

Resources:

- **Promotion and Dissemination Template**

  This template will help you design a plan for exposing your target audience to the eLearning courses.

**Monitoring and Evaluation**

Monitoring and evaluation (M&E) of your eLearning courses and eLearning initiatives is critical to ensuring that your courses are meeting a need. The Kirkpatrick Model for Evaluation is an effective and commonly used model with which to evaluate an eLearning activity. Kirkpatrick’s four-level scale of evaluation includes:

- **Level One (L1): Reaction** - measurement of the learner’s reaction to the material.
• Level Two (L2): Learning ? measurement of the learner?s increase in knowledge.

• Level Three (L3): Application ? measurement of the learner?s application of knowledge after learning.

• Level Four (L4): Analysis ? measurement of the effect of the learner?s work post-learning on a workplace.

Measuring Level 4 typically requires interviewing supervisors of those who completed eLearning courses. This is often not feasible due to the scope of the initiative and budgetary constraints.

Resources:

• Tracking eLearner Comments and Questions

  This tracking tool will help you monitor the comments and questions from course learners.

• Example Online Survey

  Use this example survey to design your own survey based on the goal and objectives of your eLearning courses.

Revision

It is important to use the data that you collect to improve the course content. So, you should have a plan in place for updating the course. Depending on the content (for example, if there are statistics that change regularly or new research developments that will change guidance), you may need to review the content with subject matter experts yearly or every 2 years.

Evidence Base

Resources:

• Effective practices in providing online, in-service training
to health professionals in low-resource settings

This article describes effective practices in providing online, in-service training to health professionals in low-resource settings to meet these identified needs. Despite sometimes problematic Internet connectivity because of service interruptions, electricity outages or the lack of availability of computers, more than 4000 health professionals from 77 middle- and low-income countries in Africa, Asia, Latin America, the Middle East and Eastern Europe have successfully participated in virtual management and leadership development programs to strengthen their skills and organizations. This article examines how blended e-learning programs for health professionals can be effectively delivered in settings with problematic connectivity, supporting participants' efforts achieve results in health.

- Utilizing eLearning to strengthen the capacity of global health practitioners and institutions around the world

This paper presents eLearning as a solution for strengthening human resources for health as well as organizational capacity of regional and local nongovernmental organizations in developing countries. Building the knowledge base and increasing opportunities for continuous learning are crucial ways to strengthen the workforce and health systems in developing countries. In this paper, the authors describe the success of the Global Health eLearning (GHeL) Center and share findings from its multi-phased evaluation. As a result of this successful experience, the Knowledge for Health (K4Health) Project, based at Johns Hopkins Bloomberg School of Public Health's Center for Communication Programs (JHU?CCP), implemented three unique country level eLearning programs that seek to improve the knowledge and skills of targeted local audiences as well as build the organizational capacity of the in-country partner organizations in delivering effective eLearning programs. The authors describe the unique applications of each, a variety of ways employed to overcome issues of access, and their lessons learned.

- A Comparison of Online versus On-site Training in Health Research Methodology: A Randomized Study

On-line and on-site training formats led to marked and similar improvements of knowledge in Biostatistics and Research Ethics. This, combined with logistical and cost advantages of on-line training, may make on-line courses particularly useful for expanding health research capacity in resource-limited settings.

CDC has found that technology-based, individual-centered training is an effective alternative to traditional instruction methods—lectures, memorizing facts, final exams—when helping front-line health workers learn how to prevent healthcare-associated infections (HAIs).

- **Evaluation of Evidence-Based Practices in Online Learning: A Meta-Analysis and Review of Online Learning Studies**

  A systematic search of the research literature from 1996 through July 2008 identified more than a thousand empirical studies of online learning. Analysts screened these studies to find those that (a) contrasted an online to a face-to-face condition, (b) measured student learning outcomes, (c) used a rigorous research design, and (d) provided adequate information to calculate an effect size. As a result of this screening, 50 independent effects were identified that could be subjected to meta-analysis. The meta-analysis found that, on average, students in online learning conditions performed modestly better than those receiving face-to-face instruction.

- **Assessment for Improvement: Tracking Student Engagement Over Time. Annual Results 2009**

  The National Survey of Student Engagement (NSSE) documents dimensions of quality in undergraduate education and provides information and assistance to colleges, universities, and other organizations to improve student learning. Its primary activity is annually surveying college students to assess the extent to which they engage in educational practices associated with high levels of learning and development.

- **Effectiveness of e-learning in continuing medical education for occupational physicians**

  Within a clinical context e-learning is comparable to traditional approaches of continuing
medical education (CME). However, the occupational health context differs and until now the effect of postgraduate e-learning among occupational physicians (OPs) has not been evaluated.

- **Promoting Engagement for All Students: The Imperative to Look Within. 2008 Results.**

  The National Survey of Student Engagement (NSSE) documents dimensions of quality in undergraduate education and provides information and assistance to colleges, universities, and other organizations to improve student learning. Its primary activity is annually surveying college students to assess the extent to which they engage in educational practices associated with high levels of learning and development.

- **Blending In: The Extent and Promise of Blended Education in the United States**

  Both fully online and blended course offerings (i.e., those that combine the elements of an online course with those of face-to-face instruction) have grown dramatically in American higher education in recent years. There is a belief among some that blended courses hold at least as much promise as fully online ones. However, the path of evolution from face-to-face learning to fully online courses is not transparent. It is becoming clear that blended learning is generally not part of an institutional transition strategy from face-to-face to fully online courses, but rather a discrete option which institutions choose on its own merits. In our analyses of survey data on online learning, we reported that U.S. Higher Education has embraced online learning.

- **The No Significant Difference Phenomenon: A Comparative Research Annotated Bibliography on Technology for Distance Education.**

  "The No Significant Difference Phenomenon" book is a fully indexed, comprehensive research bibliography of 355 research reports, summaries and papers that document no significant differences (NSD) in student outcomes between alternate modes of education delivery.
Additional Resources

There are many resources available to help you design, create and enhance your eLearning courses. Often times a search of the web will provide lots of ideas and resources.

An additional resource you may find valuable is the Certificates of Completion example that is available here. Certificates are often of value to learners and can serve as an incentive for them to take your course.

Participants at the Essential Package eLearning Launch Event, Dar es Salaam, September 2013. Photo Credit: Colleen Farrell/Save the Children

Resources:

- **Global Health eLearning Sites**

  There are many organizations that offer eLearning courses on a variety of health and development topics. The links in this attachment are provided for your convenience. Please note that they are not controlled or endorsed by the U.S. Agency for International Development or subject to our privacy policy.

- **List of free multimedia tools**
This is a list of free multimedia tools that can enhance your eLearning courses.

- **Sample Certificate of Completion**

This is a sample certificate of completion that was made using MS Word.

**eLearning Basics Course**

**Launch the eLearning Basics course**

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**Source URL:** https://www.k4health.org/toolkits/elearning