

**2001 INTERNET CONFERENCE BREAKOUT SESSION
METHODOLOGIES FOR EVALUATING ICT USE
SPEAKER NOTES**

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Why evaluate ICT use? Evaluation of ICT use enables us to:

- Assess to what extent the products we develop are reaching their intended objectives and how we are meeting the needs of the intended audiences
- Understand what works, what doesn't work, and what can be improved for the development and implementation of future products.

In this way, it helps us to build relevant, useful, user-centered products. Evaluation also allows us to understand how ICT products and resources are used and what impact they have in strengthening the skills of the health professionals. We are convinced that ICTs are relevant and useful. Yet, there's a real need to understand and communicate the relationship between information and learning disseminated via ICTs and the results that these achieve from a programmatic standpoint.

Importantly, measuring the performance of ICT initiatives enables us to report on the impact of ICTs in our programs to our donors, and thus justify donors' investments in this area.

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Regarding the effectiveness of ICTs:

It's important to be beware of the misconception that ICT always **is** more cost-effective and produces dramatic results. ICTs allow for transfer of knowledge in a more efficient manner. They require careful conceptualization and implementation so that they can meet the unique needs of our audiences.

“(...) The euphoria about ICTs should not override that fact that **they are a means to an end, not an end by themselves**. Development agencies have a role in ensuring that an effective balance is struck between the use of ICTs and their role in achieving sustainable development” (V. Young, *ICTs and Development: Testing a Framework for Evaluation*, CIDA, June 1997)

In the ICT equation, it is the people who use the product that add the essential value to ICTs. By people, we mean both the users and process through which they create & transfer knowledge, implement technical resources, exchange, and learn. In some cases, particularly in the the learning/performance support model, ICTs often do not obviate the need for trainer/facilitator.

Evaluation can be looked at from different angles: the product itself, how it is implemented and how it is used.

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Once you have defined the purpose and objectives of the evaluation, the target audience and the resources you'll have available, you'll want to get down to the nitty-gritty of planning how you'll do it.

To meet your objective, you'll need to specify what aspect of use you will measure and select a methodology for data collection. Since interacting with users entails many variables and surprises, you will need to plan for challenges in the data collection.

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Measuring refers to data that can reveal:

- Who is using an IT product
- Not usually necessary to identify users by name. In some cases, we want to identify number of unique visitor sessions. In other cases, we want to know countries accessing the product. Unique identifying information is usually important only if we need to interact with user, such as answering e-mail or sending an updated CD-ROM
- How often is the product being used. Usually not tying an individual user with frequency of use, except when interviewing users of a computer center. Looking at unique visitor or user sessions on a periodic basis, such as weekly or monthly.

Pivotal is trying to find out how they are using the product: For what purpose?

Data collection methods depend on type of product. For websites and listservs, there are access logs and traffic and error logs that can be analyzed. For a computer center, there will be sign-in log sheets and possibly proxy server logs showing surfing habits. There may also be monitoring software keystroke records. For controlled websites, there are lists of registered users. For CD-ROMs, there may be student records maintained or an incentive whereby the user returns a profile form or feedback form in order to receive CD updates.

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People often think of web access logs when they think of indicators of use for websites. This refers to logs maintained by the web server, usually on a daily basis, tracking browser requests to the website. Depending on the log format, a wealth of data can be analyzed using a reporting package, such as Web Trends.

In selecting a reporting software package, look for the capability to customize the reports. For example, you may be interested in generating a report of the visitor sessions originating from USAID-assisted countries, both current and past.

Be prepared for challenges in getting accurate data from the reports, such as originating location. One humorous example concerns reporting on browser types accessing the website. One person had discovered a way to hide their browser type and instead log a response similar to, "It's none of your business what type of browser I am using. Web pages should be browser-type independent."

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No matter what type of usage report you are generating, it is advantageous for cooperating agencies to standardize terminology when reporting statistics to USAID and each other. By terminology, I mean hits versus visitor sessions, unique visitors, visitors of unknown origin. Some units of measure are not very useful; for example, number of bytes downloaded is not very useful. There is a handout with definitions that came from the Web Trends software.

A variety of reports can help determine how a website is being used. For example, the reporting package you select should allow you to determine the most and least requested pages on the site. You may wish to customize the most active countries report to show access from USAID-assisted countries. See the following resources slide for web documents that can help you compile a country list. You may want to also report on e-mail requests you receive and listserv membership by country, particularly USAID-assisted countries, current and past.

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In designing reports to analyze your web access logs, you may wish to include a report that counts visits from USAID-assisted countries, current and past. While not definitive down to the user level, this approach will give you an idea if you are reaching your intended countries. The past countries are included because a benefit of ICT is that it allows support of our clients even after USAID is no longer working in a country.

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Overall, the question is:

- To what extent is the ICT meeting its objectives?

This question helps us to assess the relevance, usability, and usefulness of the product, by measuring how the product is used, the outcomes of its use and, if possible, its impact.

- What outcomes has the ICT product produced?
- What impact has its use had at the organizational/service delivery level?

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While reports generated by software allow us to gather some factual data on product use, user feedback gives us insight on how a product is used: the purpose, outcomes and eventually impact.

Often, we tend to rely on the informal methods to gather information about the use of our ICT products. These examples are interesting, but they do not provide representative, systematic or sometimes substantial enough information on how the products are being used, its outcomes and impact.

There are different formal approaches can be used to collect systematic feedback on users' experience and use of ICT products – the challenge is creating strategies and crafting questions that will allow us to gather the information we need.

- E-mail and web-based surveys are good for gathering specific information and tend to work well when asking questions that provide a set choice of responses (yes/no, Likert scale).
- For a more-in-depth understanding of the end-user applications and impact of the products, conducting in-depth interviews with selected users can gather responses to users' experience of the product, and how they are using the knowledge conveyed via ICTs to strengthen their capacity, and improve their performance.
- In the case of electronic forums, content analysis of e-mail messages can give information on the topics and extent of information exchanged, as well as the tone of the exchanges.

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Just as the data collection methods vary by type of ICT product, so do the evaluation challenges. For example, the wider the distribution and more remote from the publishers, as with Internet-based services, the harder it is to evaluate use of the products. Each of these evaluation aspects has challenges associated with it, which I'll discuss.

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If a goal of IT products is to help countries sustain their progress even after USAID is no longer assisting them, then you want to also examine access logs for visits from past USAID –assisted countries.

If users pass along a resource to other users, or incorporate material in course materials, or make illegal copies of CD-ROMs, the number of users appears artificially low.

Several large ISPs have global presence, and so visitors from those domains do not point to a country of origin.

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Users who just “lurk” on e-mail lists (that is, read messages without posting themselves) will not show up in the traffic logs.

If visitors to a website are using an Internet connection passing through a proxy server, your website’s pages may be cached on the server, thus giving an inaccurate picture of the number of times the pages were accessed. You could work around this by forcing the proxy server to reload the page each time, but then you may be adversely affecting the user’s surfing speed.

If a computer center’s sign-in process is not linking to charging for use, administrators may be lax about making users sign in.

Users need sufficient reward to complete feedback forms and surveys– usually monetary. In addition, users may have negative reactions to attempts to collect data from them. Users may be annoyed by the delay of a login procedure or fear for their privacy.

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Here is the pivotal impact question: impact. How do we capture in measurable ways the impact on the user of having access to the IT product? Are they able to do their jobs better? Or should we be concerned with the next higher level of impact: did availability of the IT product contribute to building capacity in the country? What type of data collection will reveal this type of impact? And, also important, can we afford to set aside enough budget to sufficiently evaluate use of the product to reveal impact?