

A Web-Based Handbook Supporting Occupational Surveying Technologies

Adam Weissmuller, Institute for Job & Occupational Analysis, San Antonio, TX
Nancy Weissmuller, Institute for Job & Occupational Analysis, San Antonio, TX
Donna Tartell, Metrica, Inc., San Antonio, TX
Johnny Weissmuller, Metrica, Inc., San Antonio, TX

Background

In today's military the trends of downsizing and the resultant restructuring are continuing. One of the side effects of this process is the increased training load caused by the inherent task migration from the knowledgeable to the newly assigned. This task migration and changing missions of tomorrow's workforce have made traditional methodologies ineffective and obsolete. The older cookbook methods also can't keep up with the changing pace of today's technology and the modern workforce.

The role of Occupational Analysis is to provide a mechanism for building, maintaining, and restructuring organizations. These trends of downsizing and restructuring, however, are also affecting occupational analysts and their staff at a time when their services are needed most.

As the Occupational Analysts find their own situations restructured, a need for a new method of transferring OA knowledge has come to light. Training new analysts means working with people who are no longer in the trainer's own organization, but rather in remote locations working for other agencies where "OA" is viewed merely as an additional, part-time duty.

Furthermore, this diversification of processing implies a greater probability for local customization and standardization will be the first casualty. Printed material simply cannot hope to keep pace with the required updates. In addition, routine distribution systems can no longer ensure those updates will reach the people who need them as restructuring continues to move bodies and organizations, thereby disrupting historically reliable lines of communication.

Introduction

With today's technology, an elegant answer is available. The answer is a web-based handbook. Functioning as both a library and dictionary, the handbook could hold the information and prevent miscommunication by defining the terminology across the Occupational Analysis paradigm and the realm of the trainer. The user would never have to worry about receiving dated information or

not being able to locate a copy of the information, as this handbook can be maintained immediately and efficiently from a remote location, and be accessed from anywhere in the world using the Internet. Because web sites can be hosted on CD-ROMs "snapshots" of the web may be viewed 1) in those locations without Internet connections; 2) on military installations with restrictive proxy servers; 3) in mid-air during airline flights; 4) and anywhere there is a PC with a CD-ROM drive.

General Design Considerations

COACH

The Comprehensive Occupational Analysis Computer Handbook (COACH) needs to provide the information required to the user without forcing the user to filter through extraneous information. Due to the nature of the Internet, web-based documents can use hyperlinks to move a user to specific information quickly, bypassing the other documents.

The handbook is more than a storage repository for documents and instructions. The role of the handbook changes depending on the user.

The ODARS Support Web Site - Microsoft Internet Explorer

File Edit View Go Favorites Help

For help on using this web site, point the mouse pointer [HERE](#), then click the left button.

Mission Statement

To Facilitate the Transfer of the Benefits of Occupational Analysis (OA) from the Army's Occupational Analysis (AOA) Program to Army Schools in the Method Most Consistent with their Current Mode of Operation.

Approach

To Provide Commanders with Sufficient Information to Implement a Course of Action Most Appropriate with his or her Local Conditions.

Method

1. Provide Commanders with Background and Action Items.
2. Provide Commander's Staff with Possible Implementation Approaches.
3. Provide Support for Occupational Analysis Operations.
4. Provide Job Aids to Facilitate Initial and Ongoing Training.

Link: [Table of Contents](#)

Link: [Reference Materials](#)

For Comments, Please Send Email to Chris Webmaster. Mail to: webmaster@odars.com
Copyright 1999, Institute for Occupational Analysis.
All Rights Reserved. This is a Contract Work Statement for the U.S. Army.
Last Modified: 10/07/99 For Help with Web Site Mechanics, see E-Rep

Local Internet zone

The COACH is an OA sales tool for guiding the executive decision-maker evaluating the potential benefits of an in-house OA program. For the agency plans shop (the implementers), the COACH provides a blueprint for setting up and institutionalizing an occupational analysis program. The COACH supports the day-to-day operations by providing high-level process overviews to managers, medium level procedural descriptions, and low-level step checklists. The COACH can also provide the just in time training (JIT) for any member of the OA unit including the operational staff, inventory developers, and occupational analysts. Finally, the COACH is the key link to the various resources available to the user on the World Wide Web.

The Executive Decision Maker

For the decision-maker, the web site exists to serve as guide through the advantages of Occupational Analysis. In an environment where it is not a choice, but a mandate the website can inform the decision-maker on the policies and choices that would have to be made. In most cases this is the use of an in-house occupational analysis program, or the use of an outside agency. The decision-maker is also provided with the answers to some of the frequently asked questions.

The Implementers

Once the decision-maker has made the preliminary choices, the implementer is sent to the same website. This individual follows the implementation path, and is given help with the planning of an OA program, both an in-house program and through an independent contractor. The majority of this track is devoted to the development of an in-house OA program. The web gives information on the resources needed and the personnel issues to overcome.

The Operations Manager

Once assigned, the day-to-day managers follow the operations path. The directions for scheduling and preparing the surveys are provided. The actual distribution of the surveys and the subsequent collection procedures are further detailed. The analysis and integration into common software packages is available in the operations section.

The Operations Support Staff

While the operations path has the steps to follow for the managers, it also allows the various subordinates to access information at many levels of detail. In most cases down to a step-by-step set of directions for any given process. The

web allows for each user to go as deep as they feel they need, or to stay at the more general directions when they are more experienced. The user can choose and not be assaulted with the majority details that they already know. The pictures are stored in the job aids section, so that they can be called upon at any time, but they also won't slow down the rest of the web without being requested by the user.

Access to Reference Materials

The final section of the web is devoted to the various references used in the development of this site. Links to other sources of information and related topics can be accessed from the Reference section. The supporting files for the web are stored here, in common formats, so they can be downloaded for on-site training or further study. Included in this section are helpful files, such as project sheets (an organizational tool) and samples of documents used during the survey project.

Specific Design Considerations

When designing an interactive web-based handbook, the software that was going to be used was a primary concern. Microsoft's FrontPage was chosen as the best package for many of its features.

The screenshot shows the Microsoft FrontPage Explorer interface. The main window displays a navigation tree for a website titled '<Root Web>'. The tree structure is as follows:

- Orders
 - Disclaimers
 - QA Program ...
 - Implementation
 - The Big Picture
 - Action Items
 - Establish Plan
 - QAD
 - In House
 - Scheduling
 - Prepare the ...
 - Surveying th...
 - Distribution
 - Collection
 - Analyze the ...
 - Job Aids
 - Operations
 - Table of Cont...
 - Reference

At the bottom of the window, there is a 'Contents of Images' table listing image files:

Name	File	Size	Type	Modified Date	Modified By
0345_001.JPG	images\0345_001.JPG	732KB	JPG	7/8/99 8:43:57 AM	adamw
0345_004.JPG	images\0345_004.JPG	554KB	JPG	7/8/99 8:43:57 AM	adamw
0345_006.JPG	images\0345_006.JPG	619KB	JPG	7/8/99 8:43:57 AM	adamw
0345_007.JPG	images\0345_007.JPG	552KB	JPG	7/8/99 8:43:57 AM	adamw
0345_011.JPG	images\0345_011.JPG	628KB	JPG	7/8/99 8:43:57 AM	adamw
0345_012.JPG	images\0345_012.JPG	615KB	JPG	7/8/99 8:43:57 AM	adamw
0345_014.JPG	images\0345_014.JPG	704KB	JPG	7/8/99 8:43:58 AM	adamw
0345_015.JPG	images\0345_015.JPG	575KB	JPG	7/8/99 8:43:58 AM	adamw
0345_016.JPG	images\0345_016.JPG	586KB	JPG	7/8/99 8:43:58 AM	adamw
0345_017.JPG	images\0345_017.JPG	578KB	JPG	7/8/99 8:43:58 AM	adamw

The integration into the MS Office package was a large factor. Plus, the FrontPage package facilitates major restructuring of the web pages in the navigation view. FrontPage can be used on many computer platforms, such as the Windows Operating Systems, UNIX, Linux, etc.

When faced with the challenge of creating and maintaining a handbook in today's environment, the decision to go to a web-based handbook was the most efficient choice. The web allows for quicker delivery to clients, and can make the data user-friendlier by linking the data to interpretation documentation. While this assumes the user has Internet access, the ability to access the Internet is not required.

For users without Internet access, the handbook can be burned on to a CD-ROM. This allows for use of the handbook without the Internet resources, but increasing the available audience. A CD version can't be updated, but the information can be stored securely. This would be the method of choice for archiving the data from OA projects, and sharing with other offices, departments, etc. The data once burned would not be able to be changed or altered, and the interpretation could be linked to the final reports. The handbook CD-ROM would also be able to be placed in the drive on a local area network (LAN) and be accessible to the entire network independent of Internet access.

While accessibility to the Internet was a concern, the variety of computers used by our clients produced new obstacles. Most web sites are using frames, windows within windows, to help with navigation and cookies to track and store personal information on the clients' computers. These methods do not take the older computers' Internet browsers and computers behind certain firewalls in to account, as they can not utilize these technologies. A side effect of finding other methods to navigate the web was a general decrease in the load time of the individual web pages. This can be a great benefit to the user who must use a proxy server for Internet access.

Progress to date

The handbook is still in a work in progress. The structure is in place, and the sections are being filled in as the current procedures are being documented. The OA program evaluation is almost complete, as is the survey distribution and collection. Currently the handbook details the use of disk-based surveys; Internet-based surveys will be added at a later date. The supporting files are accessible from the handbook. Any questions pertaining to the handbook should be directed to Dr. Jimmy L. Mitchell of IJOA (mitchell@mail.ijoa.org).

Conclusions/Recommendation

The on-line handbook is going to become a more common sight as time progresses. Many private corporations are researching on-line training, and the handbook is the culmination of training in an on-line format. The structure of the handbook can be adapted to any number of other applications, and is not limited to the OA field. The web-based handbook can be used to keep the users up to date, or to provide training to people who do not have a trainer present at their location. The on-line handbook is more cost efficient than traditional methods of disseminating training and current documentation.

The handbook is the next evolution in the continuing process of integrating technology into new applications. This web technology makes allowances for the further changes newer technologies cause in the processes it documents. The ability to be updated quickly with minimal effort will insure the handbook will always be current, but never done.