

NOAA – Steps to Effective Program Design & Evaluation

(Presented to UNHCE Staff January, 2004)

The following chart was developed by program design and evaluation staff at NOAA Coastal Services Center and was part of the in-service presented on January 20-22, 2004.

This is one piece from the notebook given to participants. For those who are interested in more of the resources from this in-service, ask you colleagues if they attended or contact Lisa Townson at 862-1031 or lisa.townson@unh.edu.

Needs Assessment (or front end assessment)	Design	Develop	Implement	Evaluate						
<ul style="list-style-type: none"> • Who are your learners? • What about the issue are you trying to impact with your project? • What knowledge, skills, attitudes, or behaviors need to be taught or changed? • How can you best accomplish this? <hr/> <p style="text-align: center;">12-Step Needs Assessment Process*</p> <p>Planning</p> <ol style="list-style-type: none"> 1. State the issue and intended audience 2. Establish planning team 3. Establish goals & objectives of the needs assessment 4. Characterize audience(s) 5. Perform an information and literature search 6. Select data collection methods <p>Data Collection</p> <ol style="list-style-type: none"> 7. Determine audience sampling scheme 8. Design and pilot data collection instrument 9. Gather and record data <p>Data Analysis and Reporting</p> <ol style="list-style-type: none"> 10. Perform data analysis 11. Manage data 12. Synthesize information and create report <p>* The 12-steps that are used for needs assessments (front end evaluations) are similar to those for evaluations at other points in the program (formative evaluations and summative evaluations).</p>	<ul style="list-style-type: none"> • Broadly outline the project. • Define your goals and objectives. • What and how much content do you need in your instruction? • How will you assess (evaluate) whether or not the project objectives have been met? <hr/> <p style="text-align: center;">Create a Program Logic Model</p> <ol style="list-style-type: none"> 1. Identify the impacts (outcomes) of the project on the intended audience and/or issue. (Start with the broadest, or long-term outcome, then add the steps (mid- and short-term outcomes) needed to get there. 2. List the activities and outputs needed to achieve the outcomes. 3. List the resources needed and/or available. 4. Read the model left-to-right as a series of “If . . . then . . .” statements. 5. Restate the outcomes as SMART objectives <p style="text-align: center;">Write SMART Objectives Specific Measurable Audience-directed Ambitious Realistic Time-bound</p>	<ul style="list-style-type: none"> • Select the specific content. • How will you structure the content? • Select the appropriate delivery methods. • Sequence the delivery methods to ensure even flow and varied levels of participation. <hr/> <p style="text-align: center;">Tools to Assist with Project Development</p> <table border="1" data-bbox="997 643 1534 1101"> <tr> <td data-bbox="997 643 1198 769">Activity Type vs Learning Objective Matrix</td> <td data-bbox="1198 643 1534 769">Instructional techniques and delivery methods used are appropriate to achieve the objectives.</td> </tr> <tr> <td data-bbox="997 769 1198 915">Methods Variety Scale</td> <td data-bbox="1198 769 1534 915">Project includes an optimal mix of active and passive learning strategies to increase retention of learning.</td> </tr> <tr> <td data-bbox="997 915 1198 1101">Process agendas</td> <td data-bbox="1198 915 1534 1101">Describe and clarify the process used to deliver information. Also clarifies roles, responsibilities, materials, and timing for the learning experience.</td> </tr> </table>	Activity Type vs Learning Objective Matrix	Instructional techniques and delivery methods used are appropriate to achieve the objectives.	Methods Variety Scale	Project includes an optimal mix of active and passive learning strategies to increase retention of learning.	Process agendas	Describe and clarify the process used to deliver information. Also clarifies roles, responsibilities, materials, and timing for the learning experience.	<ul style="list-style-type: none"> • Pilot the project • Implement the project according in accord with the needs assessment, design, and development criteria <hr/> <p style="text-align: center;">Formative evaluation</p> <ul style="list-style-type: none"> • Gathers info/data about an audience’s reactions to and learning from a project’s pilot or prototype products. Changes are made as a result of formative evaluation. • Gathers info/data about problems with the delivery and outcomes of a project after implementation. Corrections are often made as a result of remedial evaluation <p style="text-align: center;">Performance Measurement</p> <ul style="list-style-type: none"> • Collection, interpret and report on performance indicators related to how well the program performs, particularly with regard to the delivery of services (process and outputs) and achievement of results (outcomes). • Select meaningful performance measures from the logic model. 	<ul style="list-style-type: none"> • Use the appropriate type(s) of evaluation. • Evaluate at the correct level of impact. • Evaluate to determine merit and worth. • Revise or make other project decisions based on evaluation results. <hr/> <p style="text-align: center;">Types of evaluation</p> <p>Front-end (needs assessment) – see the first column.</p> <p>Formative – see the fourth column.</p> <p>Summative –</p> <ul style="list-style-type: none"> • Gathers info/data about the audience’s SKA and behaviors after project implementation. • Gathers info on the program development process. • Use for programmatic decision-making. <p style="text-align: center;">Levels of evaluation</p> <ol style="list-style-type: none"> 1. Reactions—participants’ response. 2. Learning—participants’ increase in knowledge. 3. Transfer (Behavior)—application/use of the SKAs.* 4. Results—did the application/use of new SKAs affect the issue? 5. Return on Investment (ROI) or cost-effectiveness. <p>* SKA=skills, knowledge, attitude</p>
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