

Appendix B.

Worksheets (to complete these worksheets electronically, go to www.rbff.org/educational/bestpractices.cfm.)

Worksheet 1-A Relevance to the agency/organization mission (p. 1-2).

List the mission, goals, objectives, and issues of your agency or organization that need to be addressed through educational programs:

Agency/organization mission:

Goal 1:

Objective:

Objective:

How does/will your program help achieve this goal/objective?

Goal 2:

Objective:

Objective:

How does/will your program help achieve this goal/objective?

Worksheet 1-B Program educational purpose (p. 1-3).

Given the mission, goals and objectives of your agency or organization (as you described them in the previous worksheet), describe for your education program:

Mission (what is its reason for being?):

Goal 1 (why are we doing this program?): (e.g., increase participation in angling)

Objective (what, specifically, do we want to accomplish): (e.g., have 1,000 people attend a weekend fishing clinic; have 350 people fish again within six months of attending a clinic; train 200 volunteer boating education instructors, etc.)

Objective:

Objective:

Goal 2:

Objective (what, specifically, do we want to accomplish): (e.g., have 1,000 people attend a weekend fishing clinic; have 350 people fish again within six months of attending a clinic; train 200 volunteer boating education instructors, etc.)

Objective:

Objective:

Worksheet 1-C Plan for program evaluation (p. 1-5).

Complete a program logic model like Figure 1 for your program. If you are just developing a program, consider starting with the long-term outcomes you want, and working backward. If you have a program already, complete the model and review how the pieces fit together and where there might be holes.

Source of needed support:

Specific ways you might seek additional support:

Partners or other stakeholders who can assist you:

Worksheet 1-E Experienced, well informed, prepared staff (p. 1-6).

What staff positions impact your education program?

For each position, rate the person who currently holds that position in terms of potential to successfully implement the program:

Knowledge (poor, moderate, good, excellent)

Skills (poor, moderate, good, excellent)

Behavior (poor, moderate, good, excellent)

For each staff position that you did not rate as excellent, what would it take to help that person achieve an excellent rating?

How will you work to help them improve the rating?

In what ways will (do) you provide ongoing professional development for your staff?

Is education part of your organization's strategic planning process?

How?

How would you rate the support that education receives in your organization? (poor, fair, excellent).
What would it take to improve that rating?

How do you communicate agency/organization goals and objectives to your staff?

(Duplicate for each staff member involved in each individual program)

Worksheet 1-F Frequent and sustained educational opportunities (p. 1-6).

Given the stated goals and objectives of your program, list the different ways you currently reach your target audience with your messages.

List as many opportunities as you can for expanding your reach (and your effectiveness).

Goals:

Objectives:

Current efforts:

Formal (in-school):

Non-formal:

Partnerships:

Opportunities

Formal (in-school):

Non-formal:

Partnerships:

(Duplicate as needed)

Worksheet 1-G Involve stakeholders and partnerships (p. 1-7).

In what specific ways can stakeholders assist you?

What do you and your program have to offer them?

Who are the end users for your program?

What groups should be represented on your team?

What individuals should be represented on your team?

What are the specific roles and responsibilities of the stakeholders?

Who can act as a facilitator for the team?

Worksheet 2-A Consider delivery systems and involve stakeholders (p. 2-2).

Where will your program be delivered?

Who will deliver the program? (List all possibilities for each category).

List how you have involved stakeholders in planning for program delivery:

List how you will involve any stakeholders you have not involved already:

Worksheet 2-B Relevance to sponsors and educators (p. 2-2).

Make a list of potential partners and how your program is relevant/beneficial to them.

Partner Program benefit/relevancy to partner

Worksheet 2-C Align curricula with accepted standards (p. 2-3).

List the education standards and guidelines you have reviewed to incorporate into your program:

National:

State:

District:

School:

North American Association of Environmental Education guidelines (www.naaee.org/npeee/)

National Association of State Boating Law Administrators (www.nasbla.org) or related national boating education standards

National Academy of Sciences-Science Education Standards (www.nationalacademies.org)

Other

Worksheet 2-D Review existing materials before creating new ones (p. 2-4).

Program Objective #1:

List kinds of tools that can be used to meet objective:

Existing tools/packages/materials that help you meet the stated objective:

First choice of potential existing tools:

Audience/agency/organization needs not addressed by first choice of existing tools:

Resources you have to develop tools to fill these holes (or develop entire set of tools if none exists that meets your needs):

Final choice of existing tools or description of what will be needed to meet the objective:

Program Objective #2: (repeat)

List kinds of tools that can be used to meet objective:

Existing tools/packages/materials that help you meet the stated objective:

First choice of potential existing tools:

Audience/agency/organization needs not addressed by first choice of existing tools:

Resources you have to develop tools to fill these holes (or develop entire set of tools if none exists that meets your needs):

Final choice of existing tools or description of what will be needed to meet the objective:

Worksheet 2-E Present accurate and balanced information (p. 2-5).

Is your program based on sound science, relying on genuine data collected in rigorous ways and without foregone conclusions?

Are your data above reproach in source, collection methods, and interpretation?

How do you teach learners to use data to guide decision-making?

How do you teach learners to select and evaluate information to make decisions?

How do you use your subject matter as a vehicle through which growth and development of the learner occurs?

Worksheet 2-F Address safety and regulations (p. 2-5).

Who assisted you with risk management assessment of your program?

What were/are the greatest areas of risk associated with your program?

How are you addressing these risks?

Worksheet 2-G Make relevant to the learner (p. 2-7).

List the target audience(s) for your program:

How is your program relevant to each audience?

How have you given your program a local context?

What real-world problems or issues does your program incorporate?

How does your program facilitate direct contact between learners and the outdoors?

Worksheet 2-H Empower learners (p. 2-8).

What opportunities do you provide for learners to define an issue, determine if action is warranted, identify others involved in the issues, select appropriate action strategies, create and evaluate an action plan, implement the plan, and evaluate the results? Outline the opportunities for each step.

What parts of your program provide opportunities for your learners to build skills in:

- Oral and written communication?

- Decision-making?

- Conflict resolution?

- Leadership?

More principles and guidelines regarding the learning process are available at:

North American Association for Environmental Education (www.naaee.org/npeee/learner_guidelines.php)

American Psychological Association (www.apa.org/ed/lcp.html)

Worksheet 2-I Make program learner centered to provide collaborative learning (p. 2-10).

How does your program incorporate collaborative learning and critical thinking skills?

How do you assess your learners' knowledge on your subject areas before instruction?

How have you incorporated active, experiential learning into your program?

Worksheet 2-J Match the developmental stages of your learners (p. 2-10).

To what age group(s) is your program targeted?

How have you customized your program to that age group/developmental stage?

K-3:

4-6:

7-9:

10-12:

Adults:

Worksheet 2-K Use multiple teaching methods (p. 2-12).

To what age group(s) is your program targeted?

How have you incorporated the four major learning styles into your teaching methods?

What elements of your program incorporate hands-on techniques?

What elements of your program incorporate cooperative learning techniques?

What opportunities have you given your learners to access information interactively?

Where have you made your curriculum a partnership with learners, or helped them design the curriculum themselves?

How have you made your program learner-centered instead of teacher-centered?

In what ways will you be teaching your learners how to learn (that is, how to synthesize, not just assimilate information)?

How have you made use of Internet and other technology to allow every individual to find personal paths to learning based on their backgrounds, talents and learning styles?

How have you incorporated fun into your program?

How have you transformed your teachers from transmitters of information to facilitators of the learning process?

Worksheet 2-L Interdisciplinary approach (p. 2-13).

How does your program incorporate subject areas beyond science/ecology?

If you have a formal education program, how have you involved a variety of teachers, subject areas, and grade levels?

Worksheet 2-M Consider the social context (p. 2-14).

What communities or groups do learners belong to?

What are the primary social influences on learners?

How can you enlist these influential groups to help?

How have you incorporated small group activities into your program?

How have you incorporated peer activities into your program?

How have you incorporated action learning into your program?

Worksheet 2-N Consider outcomes or skills beyond the subject matter (p. 2-14).

Make a list of lessons within your program and how they currently include or how they can be modified to include the building of assets or life-skills.

Lesson Assets or life-skills:

Worksheet 2-O Utilize a variety of resources (p. 2-14).

How does your program incorporate outdoor experiences?

List the sites/locations/facilities you will use to conduct your program:

List local community contacts you have identified to help you deliver your program:

List specific activities you will conduct in the field and/or incorporate into later classroom activities.

Worksheet 3-A Establish goals and objectives (p. 3-2).

List goal(s) for your instructor training.

List specific objectives for your instructor training.

For each objective, list how you assess whether it is achieved or not.

Worksheet 3-B Involve partners to reach a broader audience (p. 3-2).

List partner organizations you work with to increase your instruction capabilities.

For each, how does the partnership benefit your program?

What must you do to maintain the partnership? (What will it cost to keep the partner happy?)

How might the partnership be improved?

List other organizations that might be willing to partner with you.

How might you pursue these new organizations?

Worksheet 3-C Provide several layers pf training (p. 3-3).

List the kinds of training you currently provide your instructors (include workshops, newsletters, social events, updates, etc.):

Do these provide different layers of training (basic, in-depth, new areas, etc.)?

List additional levels of training that would help increase instructor effectiveness.

Worksheet 3-D Recruit experienced instructors (p. 3-3).

Identify potential teachers, instructors, or volunteers who have experience in:

Stewardship

Boating

Fishing

Natural Resource Management (fish management, aquatic ecology, etc.)

Teaching

Worksheet 3-E Train instructors in educational theory (p. 3-5).

Make a list of instructors/teachers who do not have any training in educational theory.

Make a list of instructors/teachers who do not have any training in boating, fishing, or stewardship education:

How can you provide the appropriate training to them?

Worksheet 3-F Model effective teaching methods (p. 3-6).

List the topics to be covered in your training sessions:

For each topic, identify the method to be used in the training:

For each method, identify whether it is instructor-centered or participant-centered (strive for more participant-centered activities so you model the way you expect them to teach).

List the ways that you emphasize process over content:

Create a brief agenda that shows what you will cover in your training.

Worksheet 3-G Incorporate social support (p. 3-7).

How do you provide social support for your teachers/instructors?

List the opportunities for end user social support.

What type of social support do you require your teachers to incorporate into their teaching?

Are there other ways you could provide support to instructors and/or end users? (Ask instructors!)

Worksheet 3-H Safe and appropriate learning environment. (p. 3-7).

List learning settings where you conduct instructor training.

List other settings that would be appropriate.

What are the barriers to using these settings?

What steps are necessary to make use of these settings?

List areas of your teacher instruction where you stress the importance of providing hands-on teaching methods in a variety of settings.

How do you address safety/liability issues? Do you model use of appropriate safety measures? Do instructors understand their liability?

Worksheet 3-I Appropriate approaches to evaluation (p. 3-8).

How do you ensure that instructors understand the importance of tying assessment to learning?

How do your instructors incorporate assessment into their programs?

Worksheet 4-A Base evaluation on program goals and objectives (p. 4-2).

What is (are) the goal(s) of your program (immediate and long-term)?

What are the specific, measurable objectives of your program (immediate and long-term)?

How will you measure each objective?

How will you determine whether you have met your objectives and achieved your goals (specific behaviors, knowledge base, indicators of success)?

Worksheet 4-B Make evaluation systematic and ongoing (p. 4-3).

List the ways that you evaluate your program:

During the planning stage.

During implementation.

Upon completion.

Worksheet 4-C Administrative and financial support (p. 4-4).

Is evaluation included in your program every year?

Do you include funding for evaluation in your annual program budget?

What administrative support do you have for your program?

Do program administrators actively support and encourage the inclusion of and proper budgeting for evaluation in funding proposals you submit? Comment:

List the program partners (such as university faculty and graduate students) who might assist with evaluation.

Where is administrative support lacking?

How might you address this lack of support?

Worksheet 4-D Evaluation as a learning tool (p. 4-4).

What information do you collect through evaluation that can help you in the program decision-making process?

How do you incorporate evaluation results into decisions about your program?

How often do you use evaluation results to guide decisions about your program materials? Delivery system? Other?

Worksheet 4-E Identify program outputs (p. 4-4).

Activity/event:

Date:

Location:

Number of participants:

Cost of event:

Cost per participant:

Participant satisfaction exit surveys:

List other program outputs you collect:

Worksheet 4-F Short-term learning outcomes (p. 4-6).

What are the short-term outcomes you want from your program?
(Refer to your program logic model.)

What methods do you use to accomplish this assessment?

Worksheet 4-G Long term benefits and impacts (p. 4-6).

What are the *potential* long-term outcomes of your program?

What are the long-term outcomes *you want* from your program?
(Refer to your program logic model.)

Potential survey questions you could ask your program graduates after completion:

Worksheet 4-H Multiple and varied assessment methods (p. 4-10).

Check each method you (plan to) use and identify what you will assess with each:

Surveys (describe):

Testing (describe):

Focus groups (describe):

Ethnographic method (describe):

Longitudinal studies (describe):

Experimental methods (describe):

Portfolios and journals (describe):

Projects (describe):

Other (describe):

Have you discussed evaluation procedures with a professional in this field?

Worksheet 4-I Use national criteria to assess curricula (p. 4-10).

Name of curriculum materials:

Source/date/version:

Educational criteria you have assessed the materials against:

Weaknesses or holes identified:

How you plan to address the weaknesses:

Worksheet 5-A Involve minority population in planning (p. 5-2).

Identify your minority target audience.

Identify key representatives from this target audience.

What representatives will you invite to serve as advisors to help plan and implement programs?

Define what you want to accomplish.

Define what each target group wants to accomplish.

Establish meeting dates.

Worksheet 5-B Barriers to access (p. 5-2).

Identify barriers that constrain access for each of your target audiences.

How will you address each barrier?

Identify whether your minority target audience has economic barriers.

If lack of funds is a barrier, how will you address:

Equipment needs:

At the event:

Long term -use by participants:

Transportation needs

To get to the event:

Long-term access needs of participants:

Other program costs:

Worksheet 5-C Reflect the culture (p. 5-3).

What are the cultural factors you must address to better meet the needs of your target audience?

Norms:

Beliefs:

Value Systems:

Socialization practices:

How can you modify your program to make it more meaningful to the culture of your target audience?

Worksheet 5-D Network of social support (p. 5-3).

Identify the individuals or groups that could provide social support for your target audience beyond your program.

What will you do to involve that support group in your program?

Worksheet 5-E Address the barriers (p. 5-4).

What boundaries, barriers, or constraints prevent your program from achieving maximum effectiveness with your audience?

What steps can you take to overcome these?

Worksheet 5-F Make them feel welcome (p. 5-4).

Who are the individuals with whom your participants are likely to come in contact as a result of your program?

How will you sensitize these individuals to make sure your participants always feel welcome?

Worksheet 5-G Positive role models (p. 5-4).

List some positive role models for your target audience.

When and how will you invite them to participate in your program?

Worksheet 5-H Instructionally sound (p. 5-5).

Who is your target audience?

What instructional strategies work best with your target group? (If information is not available, incorporate suggestions from members of the target group about how they like to learn.)

What instructional strategies can you incorporate into your program?

Worksheet 5-I Special challenges (p. 5-5).

How have/will you address any special challenges of assessing components of your program that target different ethnic groups or cultures?

Worksheet 6-A Involve persons with disabilities in program design (p. 6-2).

Do you have persons with disabilities on your program planning team?

Do you have individuals who work with persons with disabilities on your planning team?
If not, list people you can recruit to help.

How can you enhance their involvement in the planning process to make people with disabilities feel welcome in all of your programs?

Worksheet 6-B Make program inclusive (p. 6-3).

How does your program:

Celebrate diversity?

Respect differences?

Promote interdependence?

Foster participation and cooperation?

Foster supportive relationships?

Foster friendships?

How might you better incorporate the principles of inclusion in your program?

Worksheet 6-C Treat them as people first (p. 6-3).

How does your program treat people with disabilities as people first?

How does your instructor training sensitize your instructors to this issue?

Is language in your program materials humanizing?

Do you incorporate a discussion of humanizing language into your training?

What changes are needed?

Worksheet 6-D Eliminate or lessen constraints (p. 6-4).

How does your program address attitudinal barriers for persons with disabilities?

How does your program address resource barriers (finances, transportation, knowledge and skills, etc.)?

What might you include in program materials/training to help persons with disabilities overcome or eliminate barriers?

Worksheet 6-E Make accessible to all (p. 6-5).

Are your boating, fishing, and stewardship activities accessible to people with disabilities?

What changes are you going to make to enhance accessibility?

Worksheet 6-F Conform to appropriate legislation (p. 6-5).

Have you reviewed federal, state, and local regulations and mandates regarding accessibility? Which ones apply to your program?

Worksheet 6-G Provide instructor training (p. 6-6).

How does your staff and instructor training for working with persons with disabilities include:

Communication techniques:

Information on adaptive devices:

Interaction skills:

Worksheet 6-H Provide appropriate instructor ratio (p. 6-6).

Have you provided guidelines to your staff for determining appropriate staff-to-student ratios (i.e., determine participants' ages and type and severity of their disabilities)?

What resources might staff utilize to determine appropriate ratios of instructors/helpers to students?

Who might staff recruit to assist with presentations/activities to ensure appropriate staff-to-student ratios?

Worksheet 6-I Accessibility information in promotional materials (p. 6-6).

List the promotional materials you distribute for your programs.

For each, list changes you can incorporate to make the materials more welcoming to persons with disabilities.

Worksheet 7-A Utilize partnerships (p. 7-2).

Where will your program be delivered?

Who will deliver the program?

How will you promote your programs?

Worksheet 7-B Define the content (p. 7-2).

What are the goals and objectives of each of your boating courses?

What important information must be included in each course? (Develop a course outline.)

If you are offering a boater safety course for certification, does it meet the standards for boater safety education?

If you are offering a general boating course, list the safety information that must be incorporated.

Worksheet 7-C Careful selection of instructors (p. 7-3).

What are your goals and objectives for each type of training you plan to offer?

How do you plan to select instructors for your program?

How does your training program meet the Best Practices in training provided in Chapter 3?

Worksheet 7-D Promote your program (p. 7-4).

How do you plan to make people aware of:

The need for boating safety?

The time and place of local boating safety courses?

Besides courses, what other ways will you help individuals obtain boater safety information?

What benefits/incentives can you provide to encourage individuals to participate in boater safety education?

Worksheet 7-E Provide pathways for learners to practice (p. 7-5).

How do you plan to design your course to match the developmental stages of the learner?

How do you plan to make your programs relevant to the learner?

How do you plan to empower learners?

How do you plan to provide a positive social culture for boating and boating safety?

Complete worksheets in Chapter 2, if you haven't already.

Worksheet 8-A Define the educational purpose (p. 8-2).

What is the goal of your fishing education program?

What are your objectives to achieve that goal?

What do you want your learners to be able to do or be like after completing your program?

Worksheet 8-B Use the Recruitment-Training-Retention Model (p. 8-5).

For each target audience, what kind of social support do they have for participating in fishing and stewardship?

If your audience has little or no social support, what steps will you take to help create this support?

What are you doing currently to create awareness of fishing with the target group?

What are some additional ways you can create awareness with the target group?

What are you doing currently to create interest in fishing with the target group?

What are some additional ways you can create interest with the target group?

What are you doing currently to create trial opportunities with the target group?

What are some additional ways you can create trial opportunities for the target group?

What are you doing currently to assist the target group with the adoption/continuation phase?

What are some additional ways you can assist in the adoption/continuation phase?

What are you doing currently to break down barriers to participation for the target group?

What do you plan to do in the future to break down barriers?

Worksheet 8-C Ensure safety (p. 8-6).

How is safety addressed in your teaching materials?

How are emergency procedures addressed in your teaching materials?

How is safety addressed in instructor training?

How are emergency procedures addressed in training?

What additional information and/or training might you provide to instructors?

Worksheet 8-D Develop partnerships (p. 8-7).

Make a list of your potential partners and how your fishing education program is relevant to their missions.

Partner Program benefit/relevancy to partner

List how the partnership can benefit your program:

Partner Benefit to your program

List the costs of maintaining the partnership:

Worksheet 8-E Incorporate stewardship of aquatic resources (p. 8-8).

How do your courses incorporate ethics -based stewardship?

List the ethics -based stewardship characteristics that you want covered in an:

Introductory angling course

1-Day

Multiple Days

Intermediate angling course.

Advanced angling course.

Worksheet 8-F Target appropriate age groups (p. 8-8).

What age groups do your fishing education programs currently target?

Why?

What other age groups would your agency or organization benefit from targeting?

How would targeting these various age groups benefit your program (help better reach your stated goals)?

Worksheet 8-G Utilize well-trained instructors (p. 8-9).

Review your current instructor training. Does it cover the topics in Chapter 3 and the skill-based elements presented here?

Worksheet 9-A Align goals and objectives (p. 9-2).

How does your program define the characteristics of an environmental (or aquatic resource) steward? List the characteristics.

List the mission, goals, and objectives of your program related to stewardship.

Stewardship Mission:

Stewardship Goal 1:

Stewardship Objectives:

Stewardship Goal 2:

Stewardship Objectives:

Worksheet 9-B Address a progression of variables (p. 9-3).

How does your program address and how can you enhance:

Entry Level Stewardship Variables?

Ownership variables?

Empowerment Variables?

How does your program dove-tail with other programs that may contribute to a sequential stewardship education experience?

Worksheet 9-C Consider ethical principles and reasoning (p. 9-4).

What is your program doing currently to help participants gain the skills of ethical competence?

How might your program be enhanced to help participants become more ethically competent?

Worksheet 9-D Positive contact with the outdoors (p. 9-4).

List ways your program can provide positive contact with the outdoors.

What might you include in your program so participants are comfortable returning to the outdoors?

What might you include in your program to encourage participants to return to the outdoors?

Worksheet 9-E Enhance social support (p. 9-5).

List ways your program can help create social support for participants' actions.

Worksheet 9-F Consider all aspects of the issue (p. 9-5).

How does your program currently incorporate the influence of social, scientific, historical, political, and economic implications on environmental issue decisions?

How might you better address social, scientific, historical, political, and economic implications on environmental issue decisions?

Worksheet 9-G Encourage long-term stewardship (p. 9-5).

How does your program:

Get the learner to commit to doing one or more target behaviors?

Get the learner to select a personal goal related to target behaviors?

Engage the learner in group competition related to target behaviors?

What changes need to be made in your program (if any) to:

Get the learner to commit to doing one or more target behaviors?

Get the learner to select a personal goal related to target behaviors?

Engage the learner in-group competition related to target behaviors?

How does your program help participants overcome constraints?

How might your program better address constraints?

Worksheet 9-H Sequence of opportunities (p. 9-6)

How do your curricula give learners appropriate sequences of activities that build on one another?

Worksheet 10-A Importance of research (p. 10-1).

How do you emphasize the importance of research to your staff?

Worksheet 10-B Familiar with research (p. 10-2).

List the ways that you make your staff aware of research relevant to their programs.

List the ways that you enable your staff to become familiar with research relevant to their programs.

Worksheet 10-C Incorporate research (p. 10-2).

How do you encourage your staff to incorporate research findings into:

Program design?

Program development?

Program implementation?

Program evaluation (before, during, and after implementation)?

Worksheet 10-D Professional development (p. 10-2).

What opportunities do you provide for staff to gain greater knowledge and understanding of research processes?