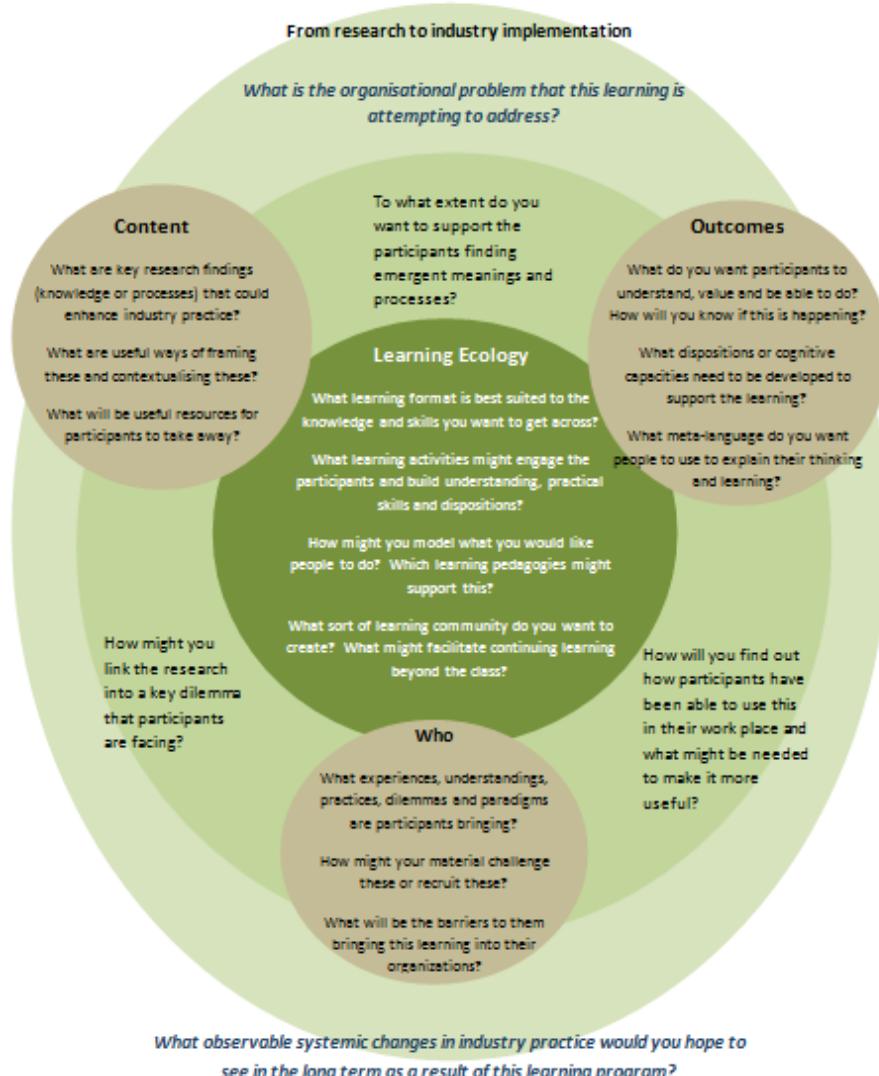


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Learning evaluation tool

Thinking about learning design



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Purpose

The purpose of this evaluation tool is to assist facilitators of professional development to move through a systematic process of program development that includes strategies for evaluation. The guide includes some reflective questions and some strategies to ensure the professional development program every chance of success and allow facilitators to assess whether it is meeting its objectives.

Program evaluation is most often defined as a process used to determine whether the design and delivery of a program were effective and whether the proposed outcomes were met. Clearly, evaluating learning is not something that is left to the end but needs to be embedded into a program design.

The following outlines a program design strategy that can be used to:

- Build a professional development program to ensure it is systematic and embeds learning evaluation into a number of steps;
- Evaluate a program that has already occurred by using the key points below as indicators and assess whether or not they were addressed.

Nine steps in program development and evaluation

The learning evaluation tool is based on the work of Rosemary Cafarella (2002) and is outlined below. There are nine steps in the tool.

Program Design:

Given the importance of ensuring good learning design in the first place, the guide will outline briefly some steps to consider. These include:

1. Discern the context
2. Build a solid base of support
3. Identify learning program ideas
4. Sort and prioritise those ideas
5. Develop learning program objectives
6. Design instructional plans

Program evaluation:

Once the professional development has occurred these are the steps that are going to be most important and so more attention is given to them in this guide. They include:

7. Devise transfer of learning plans
8. Formulate evaluation plans
9. Make recommendations and communicate results.

1. Discern the context

- It is important to be knowledgeable about the people, organisation and wider environment the professional development is to be situated within. Some questions to consider include:

1. Describe the organisational setting where the learning program is to occur.
2. What is the issue that the professional development program is to address?
3. Is this issue one that is best addressed through professional development or are other factors implicated?
4. Who are the sponsors of the program - what are their needs? Who are the potential protagonists? What are their concerns?

2. Build a solid base of support

- Ensuring support from key constituent groups is important for success. These include current and potential learners, all levels of organisational personnel and other stakeholders. Think about your potential audience and how they may be involved in the planning process. It is also important to engage them in considering transfer-of-learning strategies.
- How does the professional development program align with mission and goal statements of the organisation; existing organisational policies and standard operating procedures?
- Are there other partnerships that may be cultivated with other organisations and groups that will enhance success?

3. Identify learning program ideas

- Decide what sources to use in identifying ideas for the professional development program (e.g. government regulations, community and organisational problems; issues raised by existing personnel and potential learners).
- You may like to generate these through interviews, observations, group sessions, job analysis, surveys and conversations with colleagues.
- You may like to undertake a needs assessment, though this is not always necessary. If a needs assessment is warranted, ensure you can justify why the effort and resources are needed.

4. Sort and prioritise those ideas

- Once you have a set of ideas that may be included in a professional development program recognise that you may need to prioritise. Consider the criteria you may need to use to help you decide what ideas are important to include. Use this as an opportunity to build partnerships by including others who will do the actual prioritising process. You may decide to use quantitative or qualitative criteria and the choice may depend on your context.
- Use a systematic method for prioritising professional development ideas. The critical thing is to have a set of justifiable criteria for choosing what may or may not be included in the program.

5. Develop learning program objectives

- Write learning objectives that reflect what participants will learn, the resulting changes from that learning and the operational aspects of the professional development program. The program objectives are then translated into learning objectives.
- Ensure that both measurable and non-measurable program outcomes as appropriate are included.
- Check to see whether the program objectives are written clearly enough so that they can be understood by all parties involved (i.e., including the participants and the sponsoring organisation).

6. Design instructional plans

- Develop clear and understandable learning objectives for each instructional session and ensure they match the proposed learning outcomes (these may be based on learning how to do something, how to think differently about something or about changing attitudes and values).
- Select and organise the content based on what participants “must learn”. This “must learn” content is grounded in the learning objectives. Content that supplements the essential material should be included only if time allows.
- Use instructional approaches that match the focus of the proposed learning outcomes, taking into account the backgrounds and experiences of the learners and the learning context (this may include a mix of lecture presentations, case studies, web-based instruction, storytelling, games, role plays and simulation). Try and ensure there is a mix of techniques and that the program is not overly dominated by one alone (especially lecture presentations).
- Select and/or develop instructional resources that enhance learning (e.g., real examples, printed case studies, visual aids, video-based materials).
- Choose an assessment component for each instructional segment that improves participants learning and ascertains whether the instructional segment actually produced the desired result.
- Use instructional assessment data in formative and summative ways. Formative assessment occurs throughout the program leading to changes or adjustments that are made as the program continues. Summative assessment occurs at the end of the program and focuses on the results or outcomes.
- Prepare clear and concise instructional plans as roadmaps to stay focussed and move through the instructional processes.

7. Devise transfer of learning plans

- There are a range of factors that include transfer of learning. These include program participants (e.g., are they willing participants or conscripts), program design, organisational context and community forces.
- Decide when the transfer of learning strategies should be employed (e.g., before, during and after the program).

- Determine the key players who should be a part of the transfer of learning process (e.g., participants, instructors, work supervisors, organisational and community leaders).
- Select and /or assist learners and others to opt for transfer of learning strategies that are the most useful to them in applying what they have learned (e.g., mentoring, peer coaching, support groups, online discussions, reflective practice, transfer teams).
- The following tables are designed to assist in thinking about transfer of learning. They can be used to either evaluate a learning program that has taken place or (ideally) be considered as you are designing a learning program).

Identifying elements that enhance or inhibit transfer of learning

1. Using Table 1 below, list the specific things that did (or can) enhance or inhibit the learning transfer.
2. Next, indicate what span of decision-making control you had (or have) for each enhancer or inhibitor you listed.
3. Finally, for those items for which you have indicated only some or little or no influence, list who did (or could) assist you in the transfer process.

Table 1: Factors that enhance/inhibit transfer

Factor	Things that enhanced or inhibited transfer	Span of decision-making control	People who did or can assist in transfer
Program participants			
Program design and execution			
Program content			
Changes required to apply learning			
Organisational context			
Community and societal context			

Planning for the transfer of learning in program design

Before:

- Identify clearly what is to be transferred: knowledge, skills, attitudes

- Ascertain where the learning is going to be applied
- Set the guidelines for what constitutes successful transfer and make provisions to involve key stakeholders who will be critical to the process. Ensure expectations of supervisors and managers and learners are clear about what is to be transferred

During:

- Monitor the program to ensure there is alignment between the instructional techniques and what is to be transferred
- Provide learners with opportunities to develop specific application plans and assist them in assessing barriers and enhancers to learning transfer in their own environments
- Teach learners different strategies to transfer

After:

- Plan follow-up through a variety of assistance strategies (e.g., coaching, refresher courses, mentoring)
- Canvas learners to understand their transfer needs, discuss with sponsors of the program
- Provide feedback to program planners and other stakeholders on what learning can be realistically transferred

Table 2 assists you to develop a transfer of learning plan using the chart below. List each strategy according to when it had or should have been used or will be used and who did or should have used them or will use them.

Table 2: Transfer of learning plan

People involved	Strategy before program	Strategy during the program	Strategy for after the program
Program planners/managers			
Instructors or facilitators			
Learners			
Other key stakeholders			

8. Formulate evaluation plans

As discussed, this step should not be an afterthought but be embedded into planning from its inception. A systematic evaluation process includes the following:

- Develop as warranted, systematic program evaluation procedures. Secure support for the evaluation from those who have a stake in the results.
- Use informal evaluation opportunities to collect formative and summative evaluation data (e.g., observing participant behaviours, listening to learners comments during break times, checking to see if learners can apply what they have learned).
- Specify the evaluation approach or approaches to be used. Define precisely the purpose of the evaluation and how the results are to be used.
- Specify what is to be judged and formulate the evaluation questions.
- Determine how evaluation data are to be analysed, including how to integrate the data that were collected through any informal processes.
- Describe how the judgements are made about the program, using predetermined and/or emergency evaluation criteria for program success.

Approaches to evaluation

There are numerous approaches to, or designs for, evaluating education and training programs and their goals are typically overlapping .One particular approach may be used, or a combination of processes used. These include:

Levels of evaluation (Kirkpatrick, 1998; Guskey, 2000)

This measures four different levels:

- (1) participant reactions
- (2) participant learning
- (3) behavioural change or use of new knowledge and skills; and
- (4) results or outcomes (e.g., organisational change, increased productivity, community learning).

The focus is primarily on participant reactions and changes, and on organisational changes. This approach is most often coupled with the objectives-based model. Sample questions for inclusion and sample data collection techniques are included in Table 3.

Accountability planner (Vella, Berardinelli & Burrow, 1998)

This approach accounts for four types of evaluative data:

- (1) skills/knowledge and attitudes and achievement of broad objectives

- (2) education process elements (learning, tasks, and materials);
- (3) anticipated changes (learning transfer and impact)
- (4) evidence of change (context, processes, qualitative and quantitative).

Evaluation is viewed as a process that is interwoven throughout the program planning cycle with documentation required for each type of data. This approach is similar to the “levels of evaluation”. Sample questions and data collection techniques are included in Table 3.

Situated evaluation framework (Ottoson, 2000)

This approach situates the learner and what is being learned at the junction of the program, participant practice and evaluative context. Components of the situated evaluation framework are programming (the what and the how), valuing (who decides what is valuable and how), knowledge construction (what counts as evidence) and utilisation of evaluation findings (for what ends and by whom). A sample set of questions and data collection suggestions are included in Table 3.

Systems evaluation

This approach provides feedback on the effectiveness of the program planning and execution process, the structure of the educational unit or functions, and the efficiency of the use of resources in relation to the outcomes of the program. One emphasis of this approach is cost-benefit analysis.

Case study method

This approach gives a rich narrative of what the program looked like from the viewpoint of the participants, staff, sponsors and/or other stakeholders. It characterises how a program has been implemented and received. Sample questions and data collection approaches are included in Table 3.

Quasi-legal evaluation

This approach determines program quality through adversarial hearings. Panels hear a range of evidence (e.g., opinions, data-based studies, statements) presented in a legalistic fashion. The judgements rest with a majority opinion of the panel members. Table 3 provides some sample questions and data collection points.

Professional or expert review

This approach relies on a panel of experts making judgements, usually based on a predetermined set of categories and standards (e.g., program accreditation, formal program reviews). Most often it focuses on the resources processes, and outcomes of large education and training programs. See Table 3 for sample questions and data collection.

Table 3: Sample questions and data collection

Approach	Sample questions	Sample data collection techniques
Levels of evaluation review (Kirkpatrick 1998; Guskey, 2000)	<ul style="list-style-type: none"> • Did participants like the program? • What knowledge or skills were learned? • What values or attitudes were changed? • What changes in participant behaviour have resulted that can be linked to the program? • What overall impact has the program had on the organisation? • What overall impact has the program had on the community? 	<ul style="list-style-type: none"> • Written surveys • Tests • Performance reviews • Product reviews • Focus groups • Cost-benefit analysis
Accountability planner (Vella, Berardinelli & Burrow, 1998)	<ul style="list-style-type: none"> • What is the learner expected to do, know, or believe as a result of the program? • What are/were the educational processes used by facilitators and the participants themselves for each content-areas or achievement-based objective? • What are the anticipated changes related to learning, application and program impact? • What evidence, qualitative or quantitative, do you have of change related to the content and the process aspects of the program? 	<ul style="list-style-type: none"> • Observations, • Tests • Interviews • Review of program materials and transfer plans
Situated evaluation framework (Ottoson, 2000)	<ul style="list-style-type: none"> • What internal and external factors influence the program, what has been learned and how is that learning applied? • What are the criteria for program success, who determines these criteria and how are they developed? • What counts as real evidence of success, and does what counts vary by stakeholder? 	<ul style="list-style-type: none"> • Review of program structures, methods, content and skills taught, • Reflection on criteria • Product performance reviews

	<ul style="list-style-type: none"> • What kinds of evaluation are acceptable, who makes this decision, and what is the time frame and use for the evaluation data? 	<ul style="list-style-type: none"> • Review of evaluation data
Systems evaluation	<ul style="list-style-type: none"> • Has the process of planning and implementing the program been effective and efficient? • Have resources been used wisely in relation to the benefits of the program? 	<ul style="list-style-type: none"> • Surveys • Interviews • Cost-benefit analyses
Case study method	<ul style="list-style-type: none"> • What are the prominent events or activities respondents highlight? • What is the context of the learning site and where will that learning be applied? • What value do participants, staff, and stakeholders place on the program? • What are the program's strengths and weaknesses from the participants; and other stakeholders' perspectives? 	<ul style="list-style-type: none"> • Observations • Interviews • Organisational or community records • Self-assessments • Focus groups
Quasi-legal evaluation	<ul style="list-style-type: none"> • Which point of view represents the best judgement about the value or worth of the program? • Should the program be continued, modified, or eliminated based on a specified body of evidence? 	<ul style="list-style-type: none"> • Interviews • Organisational documentation • product reviews • Tests • Cost-benefit analysis
Professional or expert review	<ul style="list-style-type: none"> • Does the program meet a predetermined set of standards related to the processes and outcomes of the program? • Is the program doing what it claims it is doing? 	<ul style="list-style-type: none"> • Interviews • Organisational documentation • Product reviews

Sample participant questions

The following are some questions/feedback that could be sought.

On a scale of 1-7, where 1 = low and 7 = high, please rate your level of agreement with the following.

Participants and instructors:

- I learned a lot from this session
- I learned what I expected to learn
- The session objectives were clear
- The instructional materials were helpful
- The instructional techniques used helped me to consolidate my learning of the material
- The opportunities to participate were beneficial
- The instructor(s) focussed on the session objectives
- The overall session contributed to my knowledge and/or skill base
- The presenter(s) had expert knowledge of the content
- The presenter(s) was/were enthusiastic
- The presenter(s) held my interest
- The presenter(s) communicated well with the participants

Logistics:

- The registration procedures were “participant friendly”
- Was the program schedule well planned (e.g., allowed enough time between sessions, for lunch and networking?)
- Would you recommend these facilities be used again?
- Would you want the same food menus again for breaks and meals?

Overall program:

- Will you be able to apply what you have learned in your work, at home, and/or in your personal life? [comments/suggestions]
- Were you challenged by the content and by the way the material was taught? [comments/suggestions]
- How would you rate the program overall?
- Please comment on the major strengths and changes you would recommend:
 - Major strengths
 - Suggestions for improvement
 - Additional observations

- Please identify any information and/or skills you can use from the program.
- Please suggest improvements for this session.

9. Make recommendations and communicate results

This final section is also important so that continuous learning may be facilitated.

- Examine program successes and failures and formulate recommendations to revise or eliminate the current program and/or plan new ones.
- The reporting should include: the program function, its scope, the target audience, the content, the structure, style and format.
- Follow up as needed with appropriate individuals and groups to clarify questions or concerns. Make sure there are opportunities for comments on proposed program changes.

Conclusion

The nine steps of planning programs for professional development provide an opportunity to systematically consider the purposes of the program and its stakeholders. Doing so, enables stakeholders and facilitators to consider how program and learning objectives may align with broader organisational goals and what instructional approaches might be suitable.

By considering evaluation and transfer of learning criteria when programs are being developed, facilitators can ensure a high chance of success.

These dot-points and questions can also be used to look for indicators on which the quality of a learning program may also be judged.

Further reading

- Caffarella, R. S. (2002). Planning programs for adult learners. San Francisco: Josey-Bass.
- Guskey, T. R. (2000). Evaluating professional development. Thousand Oaks, Calif: Corwin.
- Kirkpatrick, D. L. (1998). Evaluating training programs: The four levels. (2nd ed). San Francisco: Berrett-Koehler.
- Ottoson, J. M. (2000). Evaluation of continuing professional education: toward a theory of our own. In V. W. Mott & B. J. Daley (eds). Charting a course for continuing professional education. New Directions for adult and continuing education, No. 86. San Francisco: Jossey-Bass.
- Vella, J. Berardinelli, P. & Burrow, J. (1998). How do they know? Evaluating adult learning. San Francisco: Jossey-Bass.
- Watkins, K. E. & Marsick, V. J. (1993). Sculpting the learning organisation: Lessons in the art and science of systematic change. San Francisco: Jossey-Bass.