

Evaluation of a Training Program

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Evaluation of a Training Program

Introduction

In order to prepare health care providers who work in Alberta's Long Term Care System to use the Alberta Assessment and Placement Instrument (AAPI), a training program was developed. The goal of the training was to teach the program participants how to use the AAPI. Thus, the program was designed to meet the following criteria:

a) demonstrate the use of the instrument, b) demonstrate the use of the data to arrive at a placement decision, c) demonstrate the use of interviewing skills, and d) stimulate discussion. Furthermore, since the instrument will be used by various health care providers (nurse, physical therapist, speech therapist, and others) and in both rural and urban Long Term Care (LTC) settings, the program was designed to a) accomodate a variety of professional staff, b) maintain consistency across sites, c) be applicable for both rural and urban programs, and d) retain flexibility for use by both individual and group learners.

The purpose of this study was to design and implement an evaluation of the training program in order to gather information useful in determining whether or not the criteria mentioned above had been met. This study was not designed to assess the reliability of the AAPI, but rather the effectiveness of the training program. To accomplish the evaluation, a model was applied that focused on the collection of data that would be useful in making decisions about the design of the learning activities and the outcomes. Specifically, data were needed to determine the degree to which the learners were able to use the AAPI and were satisfied with the presentation. In addition, the

evaluation methodology was designed so that data analysis would provide information about whether the training was suitable for learners from different professional and experiential backgrounds. The setting of this study was the Foothills District where 17 health care providers were trained to use the AAPI. However, the evaluation methodology will be used again in future offerings of the training program.

In this report, the evaluation process will be described and discussed. First, the evaluation model will be outlined, followed by a description of the methods of data collection. Then, the results will be presented. Lastly, the report will conclude with a discussion of the results and the implications of the findings for the future design of the training program and the evaluation.

Evaluation Model

The CIPP evaluation model (Stufflebeam, 1971) was selected for use in this study. This model focuses on the systematic collection and analysis of information useful to decision makers. Stufflebeam specifies four types of evaluation in this model, namely context, input, process, and product. Each type is useful in making different decisions. The types of evaluation and the respective decisions are described below.

Context evaluation refers to the collection of information used when making decisions in the planning stage of program development. During this type of evaluation, the environment (context) in which the program is to be implemented is examined. The systems of concern are identified; the system boundaries are defined. In addition, significant subsystems are identified and interactions among agencies and individuals within the system are delineated. The data that are gathered help define and clarify the need for the program and lead to the development of program goals and objectives.

The second type of evaluation is input evaluation; parameters to be assessed include characteristics of the participants, resources, facilities, and learning strategies already available within the system. Input data serves to structure decisions about the design of learning strategies that will best meet program objectives. Such information is also useful in planning learning activities that match learner characteristics.

Process evaluation describes and monitors the activities utilized in carrying out the program. Of interest to the evaluator is information about the strengths and weaknesses of the teaching and learning strategies.

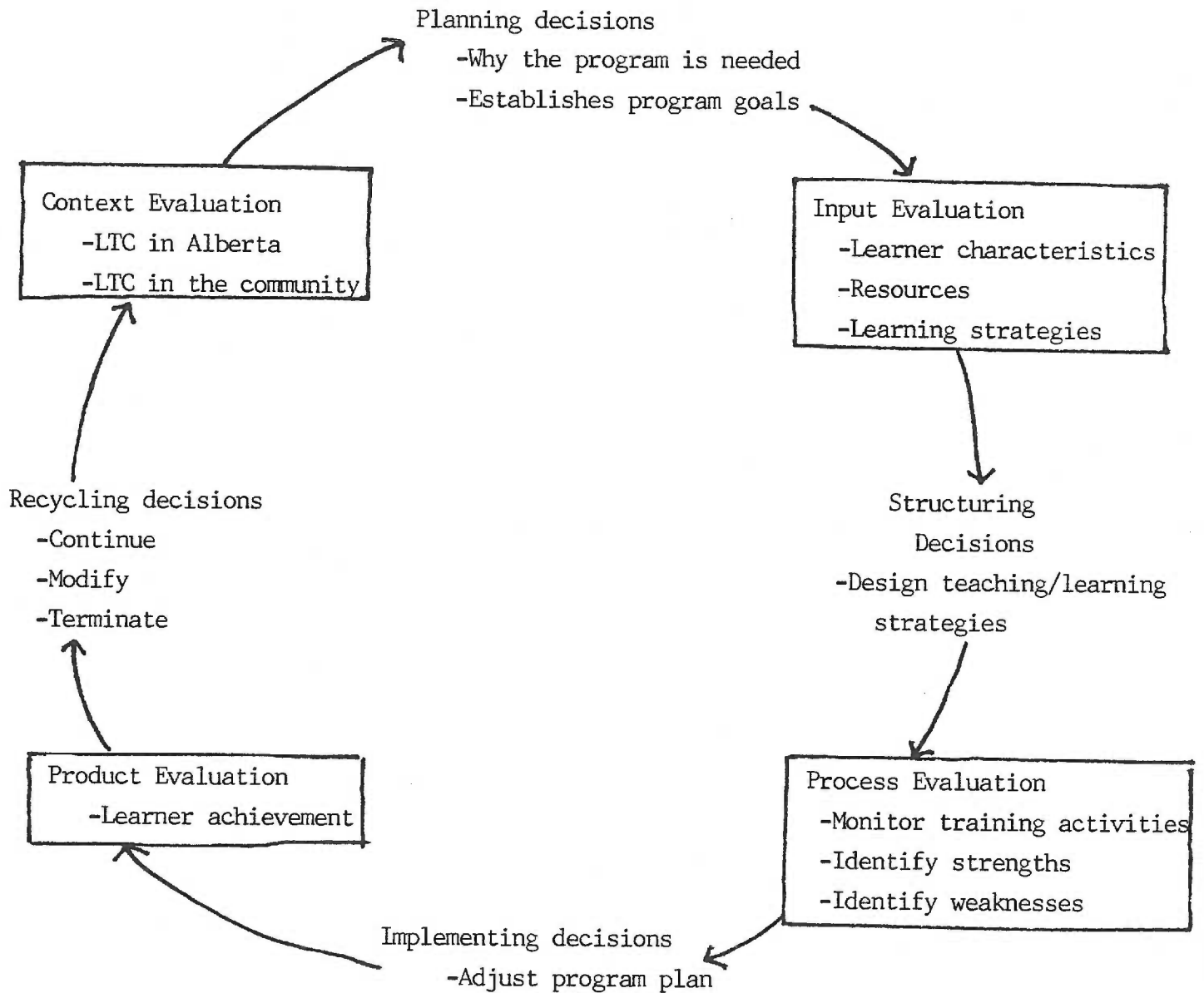
Process evaluation guides decision making in regards to program implementation.

Product evaluation is the final type. Data are collected to determine if the desired outcomes have been achieved. Information from this type of evaluation guides decisions in which recommendations are made about whether to continue, modify, or terminate the program. Program objectives guide data collection in this instance; the parameter to be assessed is learner achievement of the objectives.

Stufflebeam's evaluation process (see Figure 1) requires that information be collected at different points in time. Relative to this study, the need for the training program and the goals and objectives of the training were established by the Province of Alberta prior to the initiation of the evaluation. Thus, context evaluation was not included in this study. However, input, process, and product evaluations were included. Input evaluation was performed prior to program implementation and assisted in making decisions about the structure of the training program. Selected characteristics of the health care providers who learned to use the AAPI were identified as the inputs. Process and product evaluation were completed at the end of the program. The process was defined as the sequence and nature of the training events in which the learners participated. The product was defined as learner achievement.

Due to the complex nature of the AAPI, learner characteristics such as professional education and experience may affect the degree to which the learner achieved the desired outcomes or the degree to which

Figure 1

The Evaluation Model

she or he was satisfied with the structure of the program. Thus, a study question focused on investigating differences in learner achievement or satisfaction that could be attributed to differences in learner characteristics. This question was meant to examine the interaction of input with product, contributing to decisions about the types of learning activities to be included in the training program.

Questions

In this study, data were collected that contributed to decision making about the effectiveness of the training program in producing the desired outcomes. The questions were:

1. Input evaluation: What are characteristics of the learners with regard to professional education and experience?
2. Product evaluation: To what degree did the learners achieve the learning objectives?
3. Process evaluation: To what degree were the learners satisfied with the training program?
4. Interaction of input with product: Was there a difference in learner achievement or satisfaction with the training program that can be attributed to differences in learner characteristics?

Methods

In evaluating the training program that was presented at the Foothills pilot site in February, 1986, data collection was completed at two different times. Four specific instruments for data collection were developed, one that was administered during a pre-training site visit and three that were administered at the completion of the training program. In this section of the report, these methods of data collection are described along with discussion of the process of the development of the tools.

Participant Survey

Several weeks prior to the training program, the instructors made a site visit to the Foothills District to collect input evaluation data. While some contextual data about the Provincial LTC system had been gathered prior to this study, the site visit allowed the instructors to become familiar with the agencies that would be involved in and/or affected by the application of the new client assessment process utilizing the AAPI.

Input data gathered at the pre-training site visit included information about the participants. A data collection tool, the Participant Survey, was developed to assist with the collection of input data based on parameters suggested by the input component of the CIPP model. Specifically, data were collected on learner characteristics such as: a) place of employment; b) role in project; c) profession; d) educational background; e) previous experience with regard to the use of interview, assessment, placement, and referral

skills; f) attendance at continuing education (CE) events; g) attendance at CE events where assessment was the topic; h) preferences regarding types of educational presentations and materials; and i) expectations for the training sessions. The Participant Survey was administered to health care providers who attended a meeting with the instructors about the upcoming training sessions and pilot testing of the AAPI in the Foothills District.

Information gathered from the Participant Survey was used to classify the learners according to differences in characteristics. Learner categories were established based on differences in profession, years of experience in the profession, previous work experience in performing assessments, and previous training in performing assessments.

Learner Achievement - Post Test

A Post Test was developed to evaluate learner achievement of the learning objectives. The objectives were:

1. State the purpose of the AAPI.
2. Discuss the underlying philosophy of the AAPI.
3. Describe the aspects that make the AAPI unique.
4. State three uses for the data obtained on the AAPI.
5. Explain what an initial assessment is.
6. Identify who performs the initial assessment.
7. State when an initial assessment is done.
8. State what the responsibilities of the assessor are.
9. Explain where the referrals are derived.
10. Identify those individuals who should be initially assessed.

11. Describe the steps in performing a comprehensive patient screening and assessment.
12. State when a reassessment should be performed.

The Post Test consisted of twenty-five items that were based on the learning objectives. Of these items, seven were true or false questions, nine were multiple choice questions, three were matching items, two were short answer write-in, and four were short essay questions. The Post Test was administered to learners at the completion of the training program.

Learner Achievement - Case Study

A Case Study was designed to test the learner's abilities to apply knowledge gained in the training sessions to completion of the AAPI. Learners were provided a blank copy of the AAPI at the completion of the training session and were asked to complete the assessment instrument (AAPI) based on the information in the Case Study. The analysis of the data obtained from the Case Study focused on determining the learners' accuracy in completing the Decision Rule (Section VII) and the Placement Summary (Section VIII) of the AAPI.

The Decision Rule consists of 15 items to which an assessor responds yes or no; directions in the rule indicate client placement based on the patterns of response to these items. For example, according to the directions in the AAPI, answering yes to any one of items # 1-3 indicates that the client should be referred to a physician for placement outside of the LTC system. The Placement Summary is a two

part (seven items each) summary of the recommended client placement. Only Part A is used when the placement is home care and only Part B is used when the Placement is institutional. In order to score the Case Study, a key of correct responses was used to determine the degree to which the learners used the two sections of the AAPI correctly.

Course Evaluation

The Course Evaluation Tool was designed to collect process evaluation data. This tool consisted of a Likert-type scale of 12 items and three open-ended questions. The open-ended questions were designed to assess the participants' perceptions of the process aspect of the program in terms of the strengths and weaknesses of the sessions along with suggestions form improvement. The Likert-type scale items were designed to assess learner satisfaction with: a) what was learned, b) usefulness of the case studies and examples used during class, c) the way in which the material was presented, d) the amount of time allowed to have questions answered and to exchange ideas with other learners, e) the relevance of the material to future needs, and g) the overall course. The Course Evaluation tool was pilot tested in a college classroom setting prior to use with this training program. Internal consistency reliability was established at 86% using the Spearman-Brown prophecy formula with 27 respondents. The Course Evaluation was administered to learners at the completion of the training program in conjunction with the Post Test and the Case Study.

Results

Learners

In completing the evaluation of this training program, it was felt that the Participant Survey provided useful and adequate information about the learners upon which decision making could be based. For decisions about both the structure of the training and the ability of the training to accomodate different learners, the Participant Survey provided information about selected characteristics of the learners. While 17 health care providers participated in the training, the entire survey was completed by only nine participants. Thus, some data are missing for some of the variables. The results of data collection on four variables are presented in Table 1.

Of the four learners who were not registered nurses (non-RN), one was a respiratory therapist, one a physical therapist, one a speech therapist, and one an occupational therapist. Data regarding years of experience in the profession were available for nine of the learners. Results indicated that three of the learners had 0-9 years of experience, five of the learners had 10-19 years, and four had 20-31 years. When the learners were asked if they had performed assessments in a job prior to their current job, two responded yes, while seven learners responded no. Furthermore, four learners had attended previous training sessions or continuing education classes in performing assessments, while five learners reported no previous training in doing assessments.

Table 1

Learner Characteristics

Characteristics	Number	Percent
Total Number of Learners	17	(100%)
Profession		
RN	13	(76%)
Non-RN	4	(24%)
Years of Experience in Profession		
0 to 9 years	3	(18%)
10 to 19 years	5	(29%)
20 to 31 years	4	(24%)
Performed Assessments in a Job Prior to Current		
Yes	2	(12%)
No	7	(41%)
Attended Training in Performing Assessments		
Yes	4	(24%)
No	5	(29%)

At the time of the training, eight of the learners were working in a hospital setting, six were working in the Coordinated Home Care Program (CHCP), two were working in a nursing home, and one was employed in an auxiliary hospital. When asked what their role was in the single entry assessment project, five participants indicated that they were primary assessors, three indicated that they were on the advisory committee, one was an Institutional Placement Coordinator, one was a CHCP Placement Coordinator, and two were alternate assessors.

Two questions on the survey gathered information about what learning strategies were preferred by the learners. Of the nine participants who responded to the questions about what type of presentation was preferred, all selected one or more of the following formats:

a) lecture and discussion combined was selected by all nine of the participants, b) small group discussion was selected by four of the participants, and c) large group discussion was selected by two of the participants. When asked to indicate what type of educational materials they preferred, the participants responded as follows: a) eight selected verbal presentations, b) seven selected reading materials, c) seven selected diagrams, d) seven selected television, and e) seven selected case studies/presentations.

The last question asked was: "What do you expect from the training proposed as part of this project?" Five of the participants indicated that they expected to learn how to use the assessment instrument (AAPI) and two participants expected to learn what duties they had to perform during the pilot testing of the AAPI. Two other participants expected

to learn and improve upon their assessment skills. Lastly, two specific comments were as follows: "to be able to explain to people what the pilot is all about" and "group cohesion on the use of the tool."

Learner Achievement - Post Test

The scores of the learners on the objective sections of the Post Test are reported in Table 2. The scores do not reflect the short essay questions, in part because of the wide diversity in answers and the difficulty in scoring. The scores that are reported are based on a maximum of 21 points (each item equals one point). The lowest score was 7 (33%), while the highest was 20 (95%). Overall, 13 learners (76%) scored 75% or better on the Post Test.

Table 2

Learner Scores on the Post Test

Number learners	17
Post Test Maximum Score	21 (100%)
Range of Scores	7 (33%) to 20 (95%)
Average Score	16.92 (81%)
Mode	17 ^a (81%)
Standard deviation	2.9

^aSeven of the learners scored 17 on the Post Test.

Items on the Post Test were analyzed to determine the percentage of learners who responded correctly to each item. According to Steele (1978), the higher this percentage is, the easier the question is. Results of the item analysis are presented in Table 3. On two items, only 24% of the learners responded correctly. On the other hand, all learners responded correctly to two of the items.

Table 3

Post Test Item Analysis

Item Content (type of question)	% Who Answered Correctly n=17
Philosophy underlying the instrument (multiple choice)	100%
What constitutes the need for reassessment(multiple choice)	100%
Define: documenting (matching)	94%
Completing the assessment process (multiple choice)	94%
Assessors responsibility regarding further evaluation (multiple choice)	94%
Define: process of placement (true/false)	94%
Only health care providers can use the instrument (true/false)	94%
Define: initial assessment (true/false)	88%
When an initial assessment is required (multiple choice)	88%
Define: assessment (matching)	88%
Policy: who does assessments for community applications (fill in the blank)	88%
Policy: who does assessments for institutional referrals (fill in the blank)	82%
Define: process of assessment (true/false)	82%
Sources of referral (true/false)	76%
Three ways in which data can be used(multiple choice)	76%
What must be done to complete the instrument (multiple choice)	71%
What makes the instrument unique (multiple choice)	71%
When Consent to Release Information must be signed (multiple choice)	53%
Define: placement (matching)	47%
When a home visit is required (true/false)	24%
Purpose of the instrument (true/false)	24%

Note: Items are presented in descending order of difficulty.

An objective in planning the training program was to provide learning activities that would accomodate a variety of professional staff. A goal of the training was that learner achievement would be similar regardless of professional and experiential background of the learners. Thus, comparisons were made of the Post Test scores in order to look for differences in achievement that may be explained in part by differences in learner characteristics. The learners were classified into groups based on differences in learner characteristics such as profession, previous training in performing assessments, previous work experience in performing assessments, and years of experience in the profession. The comparisons of learner scores on the Post Test are presented in Table 4. These comparisons were made based on the average test score within the group, the standard deviation for the group, and the deviation of the group mean score from the average score for all learners. The average Post Test scores for each of the groups were similar to one another. The learners who had performed assessments in previous jobs scored higher than any other group. And the learners who had 20-31 years of professional experience scored the lowest. There was little difference in the scores of learners when RN's were compared to non-RN's and when those with previous training in assessment were compared to those with no training. In fact, the average scores of all groups varied from the average score for all learners by less than one standard deviation.

Table 4

Group Comparison - How Different Learners Scored on the Post Test

Group	N	Average (Maximum score =21)	Standard Deviation	Deviation from All Learners
All learners	17	16.92	2.9	--
RN Only	13	16.08	3.2	0.84
Non-RN	4	17	0.82	0.08
Had Prior Training in Performing Assessments	4	17.25	2.5	0.33
Did not have Prior Training	5	17.6	0.548	0.68
Had Previous Work Experience in Performing Assessments	2	18.5	2.121	1.58
No Previous Work Experience in Performing Assessments	7	17.14	1.464	0.22
0-9 Years Experience in Profession	4	16.5	1.73	0.42
10-19 Years Experience in Profession	5	17.8	1.483	0.88
20-31 Years Experience in Profession	4	14.75	5.188	2.17

Note: Deviation from all learners was computed by subtracting the mean score for all learners from the mean score for each group. Reported here is the absolute value of the deviation score.

Learner Achievement - Case Study

In order to assess the learners' abilities to complete the AAPI based on the Case Study, two sections of the AAPI were scored, namely the Decision Rule (Section VII) and the Placement Summary (Section VIII). Learner responses to these two sections of the AAPI are summarized in Table 5.

Table 5

Learner Response Pattern to Case Study

Response	N	%
Made the correct placement recommendation	7	41%
Made no placement recommendation	5	29%
Made recommendation that placement be LTC	2	12%
Marked the placement recommendation as other	3	18%

There were seven learners that made a placement recommendation that was correct (either non-LTC or active treatment hospital). Yet only three of these seven arrived at the correct placement by using the Decision Rule appropriately. One problem noted was that the learners failed to follow the directions written in the Decision Rule, responding to more items than necessary to arrive at the correct placement. Of the four learners who made the correct placement but did not use the Decision Rule appropriately, two completed six

items in the Decision Rule and then made a placement decision different from that which was indicated in the directions. The other two learners completed the Decision Rule in a pattern that indicated placement in an Auxiliary Hospital.

There were five learners who made no placement recommendation. Of these, two had used the Decision Rule correctly and one had not completed the Decision Rule at all. One other learner had completed 11 items; if the Decision Rule had been used properly this would have resulted in placement of the client in a non-LTC facility. The final learner in this group who made no placement recommendation had completed 12 items of the Decision Rule which should have resulted in placement of the client in an Auxiliary Hospital.

Two learners recommended client placement in a LTC institution. Each of these learners used the Decision Rule in a pattern that indicated Auxiliary Hospital Placement. The response of the final three learners was to indicate "Other" in the Placement Summary Section of the AAPI. One of these three wrote in hospital, having not completed any items of the Decision Rule. Another wrote in rehabilitation hospital after having completed the Decision Rule in a pattern consistent with non-LTC placement. The last learner checked "Other" but did not write in any response. This learner had completed the Decision Rule in a pattern indicating Auxiliary Hospital placement.

There was much diversity in the way that the learners used the Decision Rule. Except for three learners, directions in the Decision Rule were not followed. Thus, it appears that for 14 of the learners, the placement recommendation was not based on the Decision Rule.

Course Evaluation

The Course Evaluation instrument has two parts, the 12 item Likert-type scale and three open-ended questions. The 12 item scale was totaled to obtain a satisfaction scale score. Results of the learners' scores on the satisfaction scale are presented in Table 6. Participants who agreed with the scale items scored high (maximum score=60); a high score indicated satisfaction with the training program. A score of 36 indicated neutral in terms of satisfaction and a score below 36 indicated dissatisfaction with the training. Using the Spearman-Brown prophecy formula, internal reliability was computed for the 12 item scale at 90% for this sample.

Table 6

Learner Scores on the Satisfaction Scale

Number of learners who responded to scale	16
Maximum score on satisfaction scale	60
Range of scores	44 to 60
Average score	51
Mode	48 and 50 ^a
Standard deviation	4.47
Number items on scale	12

Note. The higher score indicates satisfaction with training.

^aThree learners scored 48 and three learners scored 50.

The results of the satisfaction scale indicate that the learners were satisfied with the training program, since all learners scored higher than the neutral score of 36. In order to obtain more information about the learners' satisfaction with the training program, each item of the scale was examined individually. This process allowed for identification of areas in which the training program was better liked by the learners as a group (see Table 7). The findings indicate that the training was best at allowing time for questions to be answered and allowing opportunity for students to exchange ideas. In addition, the learners indicated agreement with the statement: I learned what I expected.

The responses to the open-ended questions varied widely. In terms of the strengths of the course, the learners identified several general themes: a) it was beneficial to be able to interact with various disciplines and with individuals from different agencies; b) the course was well presented; the instructors were knowledgeable, helpful, and approachable; c) the presentation was educational and informative; and d) it was beneficial to have examples, hands-on experience, and sharing of ideas.

Learner responses to the question in which they were asked to identify the weaknesses of the course resulted in these general themes: a) not enough time allowed; b) too much time and too long hours; c) needed better practice assessments; d) audiovisual equipment was too small and not well placed; e) I do not feel ready to use the tool; and f) the case study was very frustrating.

Item Analysis on Satisfaction Scale

Item	Average Score (n=16)
Time for questions to be answered	4.24
Opportunity for students to exchange ideas	4.18
Learned what I expected	4.12
Presentation was interesting	4.06
Presentations were clear, easy to understand	4.06
Overall satisfaction	4.06
Case studies, examples were helpful	4.00
Presentation was logical	4.00
Content was not too easy or too difficult	3.88
I achieved the objectives	3.88
Content is relevant to future needs	3.76
Amount of time was adequate	3.65
Total average score all items, all respondents	3.99
Standard deviation	.55

Note: Score is based on a scale that ranges from 1 to 5 where 1 represents strongly disagree, 3 represents neutral, and 5 represents strongly agree.

Learner suggestions for improving the course included:

a) the case study needed more information for total completion, b) add one extra day, c) use a more complicated example, d) it would have been helpful to have read the instruction manual before filling out the case study from the video, and e) distribute the manuals and a sample assessment as pretraining reading.

Table 8 presents the comparisons of learners in the different groups based on the satisfaction scores. The same statistics are provided as in the Post Test score comparisons. Once again, the average score for each group varied only slightly within groups and when compared to the average score for all learners.

Table 8

Group Comparison - How Different Learners Scored on the Satisfaction Scale

Group	N	\bar{x}	Standard Deviation	Deviation from All Learners
All learners	16	50.88	4.47	--
RN Only	12	51.25	4.14	0.37
Non-RN	4	49.75	5.91	1.13
Had Prior Training in Performing Assessments	3	53	6.083	2.12
Did not have Prior Training	5	52.8	3.962	1.92
Had Previous Work Experience in Performing Assessments	2	52.5	3.536	1.62
No Previous Work Experience	6	53	4.98	2.12
0-9 Years Experience in Profession	3	53.33	5.686	2.45
10-19 Years Experience in Profession	5	50	6.164	0.88
20-31 Years Experience in Profession	4	51.5	3.697	0.62

Note: Deviation from all learners was computed by subtracting the mean score for all learners from the mean score for each group. Reported here is the absolute value of the deviation score.

Discussion and Recommendations

The methodology used in this study provided information upon which program structuring, implementing, and recycling decisions can be based. Initially, information that was gathered prior to program implementation guided decisions about the design of the training program. Data that were collected at the completion of the program guided decisions about the way in which the program was carried out and whether or not the desired outcomes were achieved.

Structuring Decisions

According to the CIPP evaluation model, input evaluation provides information useful in making decisions about the structure of educational programs. This involves decisions about the design of the teaching and learning strategies. In this study, input evaluation was completed by assessing learner characteristics using the Participant Survey. The Participant Survey served two purposes. First, the instructors were able to plan learning strategies with knowledge of learner characteristics. Second, learner characteristics were used to determine the degree to which the training program achieved the same outcome with learners from different professional and experiential backgrounds.

Information about learner characteristics and preferences for educational presentations and materials guided decisions about the structure of the learning activities. For instance, since few learners had prior training in performing assessments, the program was designed to focus on the assessment process as well as to demonstrate the use of the AAPI. In addition, learner preferences regarding educational presentations and materials led to the use of learning strategies such

as lecture with discussion, use of case studies, and use of audiovisual presentations.

Results of data collected by the Participant Survey indicated that there were differences in the learners on the characteristics of profession, years of experience in the profession, previous experience in performing assessments, and previous training in performing assessments. Based on these results, the training was designed to be applicable to both RN's and non-RN's and to those with little or no previous experience or training in performing assessments. A method of data analysis was employed to compare learner achievement and satisfaction level based on these differences in learner characteristics. While the number of participants in this study is small (one group has $n=2$), it appears that the learners achieved and were satisfied at similar levels.

The findings indicate that the training program accommodated learners from different professional and experiential backgrounds in the Foothills setting. However, since the sample size was small, input evaluation data should be collected at another site to verify the findings. In addition, with a larger number of participants ($n>30$), a statistical test should be used to determine if any differences found between the groups are significant. Another recommendation is that the Case Study be scored and comparisons made between the different groups based on their ability to complete the AAPI.

Implementing Decisions

Process evaluation provides information useful in making decisions about the way in which a program is implemented. In this study, the Course Evaluation instrument was used to assess the participants' satisfaction with the way in which the program was implemented and their perceptions of the strengths and weaknesses of the training activities. Based on this information, decisions can be made about adjusting the program plan.

The satisfaction scale provides an overall impression of how satisfied the learners are with the way in which the training session was conducted. The scale is useful in that it provides a way in which learner satisfaction is quantified. In addition, the item analysis of the scale indicates areas in which the presentation was well done and areas in which the presentation should be improved. For the training sessions implemented in the Foothills District, the scale results indicate that on the average, the learners were satisfied with the course. While some items have a higher average score than others, there is not much variability in the scores. Rather, the learners were satisfied with all dimensions of the presentation that were measured by the scale.

Learner responses to the open-ended questions provided some ideas about the strengths and weaknesses of the course and about ways in which the course might be improved. Many learners commented that a strength was the open way in which the participants were able to communicate with one another and with the instructors. The variety of presentations and the informal discussions were also noted as

strengths. In addition, the learners were satisfied with having enough time to get their questions answered. Learner suggestions for improving the course presented some interesting ideas. Two learners indicated that it would have been helpful to have read some of the materials (handouts, manuals) prior to the training session. Another learner suggested doing the Case Study a section at a time and then having a discussion. In addition, using a more complex example as a Case Study was suggested by another learner. All of the ideas (see Appendix for a complete report) have merit and should be considered as adjustments are made in the training program process.

The results of process evaluation indicate that the way in which the program was implemented needs little adjustment. A recommendation to improve the Course Evaluation is that learners be contacted two to three weeks following the completion of the training program in order to elicit feedback on the same dimensions by repeating administration of the Course Evaluation. Learners may be able to respond to a survey of this type more accurately at a later time.

Recycling Decisions

According to the evaluation model, product evaluation provides information useful in making decisions about continuing, modifying, or terminating the program. Stufflebeam (1971) labeled these decisions as recycling decisions. Product evaluation was completed by assessing learner achievement using two instruments, the Post Test and the Case Study.

Post Test. The results of the Post Test indicated that more than 75% (13) of the learners responded correctly to at least three-fourths of the test items. In contrast, there was one learner who answered only 33% of the items correctly and three others who answered less than 75% of the items correctly. However, prior to using the Post Test as a measure of cognitive achievement in this setting, a decision had not been made as to what level of achievement would be expected from the learners nor about what would be done for learners who did not achieve at or above the mastery level. The content of the Post Test was designed to focus on issues of philosophy, policy, procedure, and definition of terms. Whether or not it is crucial that learners know this information prior to using the tool may be debatable, yet from an administrative point of view, it is desirable that personnel be familiar with both policy and procedures that are pertinent to processes used in the work setting. Therefore, a Post Test should be used to assess learner achievement and should contain items that reinforce the training program content in regards to philosophy, policy, and procedure.

The results of this initial use of the Post Test indicate that decisions and revisions need to be made. First, items on the test should be reviewed and revised as needed to maintain consistency with current policy and/ or procedure and with what is being presented in the training sessions. In fact, this process should be ongoing as long as the Post Test is used. The item analysis can be used to evaluate the test items. Since it is desirable that most learners respond to most items correctly, items to which less than 80% of the learners

respond correctly need attention. It may be necessary to revise the item or to revise the training program content.

Second, once the items have been used, revised, and are satisfactory, a score should be established that indicates mastery of the content. In a training program of this nature, it is desirable that a learner respond to 85-90% of the Post Test items correctly. A learner who scores above the 85-90% level masters the content, while a learner who scores below is recycled. Recycling of learners may not require retraining, but might involve a session with an instructor to clarify areas of confusion or misunderstanding. This approach to scoring the Post Test is known as criterion referencing, where the learner is expected to meet certain criteria relative to achievement of the course objectives. In contrast, normative referencing, where each learner's performance is rated by comparison to other learners, is not appropriate for work related training. The goal of work related training, as in this program, is that all learners achieve the objectives. Thus, the criterion referencing approach is most suitable for this evaluation.

A third recommendation is that the essay questions be revised. As essays, these questions were difficult to score and therefore added little information about learner achievement. It would be more useful if the items were in multiple choice format. A fourth recommendation is that the learners score the Post Test themselves in class at the instructor's direction. This would provide immediate feedback to the learner about their performance. In addition, by reviewing the content of the test items, the instructor could clarify the correct response

and thus reinforce learning.

Case Study. The results of the Case Study indicated that many participants had difficulty completing the Decision Rule and the Placement Summary correctly. In fact, only seven learners placed the client correctly and only five learners used the Decision Rule correctly. Some reasons for this may include: a) there was not enough time spent during the training program on use of the Decision Rule and the Placement Summary, b) the Case Study did not provide enough explicit information upon which to base a decision regarding client placement, c) directions in the AAPI itself are not explicit enough to guide the assessor through the decision process, and/or d) the Decision Rule itself is confusing. The first two reasons are reflective of the training program and not the assessment instrument, thus a recommendation is made that more time be spent in the training content on use of the Decision Rule and the Placement Summary. Further, since it did take the learners a long time to complete the Case Study (as reported by the instructors), a revision is suggested that will shorten the process of administration of the Case Study instrument. In future training sessions, attached to the narrative Case Study should be a copy of the AAPI that has been completed based on the Case Study up to the Decision Rule. Learners would read the Case Study, review the AAPI to see how the form had been completed, and then complete the Decision Rule and the Placement Summary sections of the assessment tool. The narrative portion of the Case Study should remain unchanged.

Summary of Recommendations

The findings of this study suggest that some aspects of the training program and evaluation techniques should remain the same, while other aspects should be modified. A summary of the recommendations follows:

- a) The way in which the program was implemented, utilizing a combination of lecture and discussion formats and providing hands-on practice with use of case studies, should remain the same.
- b) The training program structure should continue to allow adequate time for questions to be answered.
- c) The training program content should be modified to include more focus on use of the Decision Rule and the Placement Summary sections of the AAPI.
- d) Time should be allowed during the training program for learners to score their own Post Test and Case Study.
- e) The Post Test, the Case Study, and the Course Evaluation should be used again to evaluate the training program with modifications as discussed below.
- f) Some Post Test items require revision based on results of the item analysis. Revisions should be considered for items to which less than 80% of the learners responded correctly.
- g) The process by which the Case Study is administered to the learners should be shortened by providing the learners with a copy of the AAPI that has been partially completed.

h) A method should be employed to score the way in which the learners use the Decision Rule and the Placement Summary.

i) A mastery level should be set for both the Post Test and the Case Study. This level would indicate the minimum score which the learners must obtain at completion of the training program.

j) The Course Evaluation can be improved by requesting that some learners respond to the open-ended questions two to three weeks after completion of the training.

k) In terms of the Participant Survey, the information should be gathered again when a larger number of participants are involved so that comparisons of learners based on differences in educational and experiential backgrounds can be made. If it is found that learners with different characteristics achieve similarly, then use of the Participant Survey could be discontinued.

Conclusion

In summary, the results of a study designed to provide evaluation data useful in making decisions about structuring, implementing, and revising a training program have been presented. A multimethod approach to data collection was employed in gathering information about the input, process, and product of the training program. While the number of learners in this study was small, the results are useful in suggesting ways in which the program and the evaluation methods can be improved.

References

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Evaluation of a Training Program

Abstract

The purpose of the study was to design and implement the evaluation of a training program in order to assess the effectiveness of the training as a strategy for implementing change within a health care delivery system. An evaluation model described by Stufflebeam (1971) was used as the theoretical basis for this study in order to delineate the variables that were assessed. Subjects for the study were health care professionals who participated in a training program for the purpose of learning to use a new client assessment and placement process in the long term care system in the Province of Alberta, Canada. Evaluation methods and the dimensions that were assessed include a) pre-training survey to assess selected characteristics of the learners (subjects) such as professions, work experience, and educational background; b) feedback from the learners on a Likert-type scale to assess learner satisfaction with the training; and c) post test comprised of test questions and a case study which were intended to assess learner achievement.

The findings of the study were used to make recommendations for improving the training program and the evaluation materials. In addition, the findings were applicable to the evaluation of the process by which the change was introduced into the health care delivery system. Results of this study also helped identify problems with the way in which the client assessment and placement process was designed.

Appendix

Summary of Open Ended Questions

Course Evaluation

Summary - Course Evaluation

1. What were the strengths of this course?

presentation, allowance for group interaction; "hands on" experience.

interactions between various disciplines and increased awareness of various attitudes.

presented well; like the tool, the detail especially.

informality, small groups, clarity of presentation; variety of presentations.
group involvement.

outlining clearly the assessment plan.

the instructors were knowledgeable, helpful, approachable.

using the tool; Susan and Cynthia were very open for suggestions.

the assessment and placement tool presentation was educational and informational;
working in an acute care hospital it was enlightening.

it was logical approach to patient evaluation.

I was able to see the program; I know where help is available.

A very open communication line between instructors and participants - criticisms
and comments were encouraged.

well promoted by the teachers involved.

Informal discussion and use of real data from client interviews.

Sharing of ideas; learning a process.

well presented; interaction positive; insight into the program was good.

allowed institution staff to see Home Care clients; excellent instructors.

2. What were the weaknesses of this course?

Audiovisual equipment (TV screen) too small and not well placed for easy viewing.

Not enough time allowed for learning method of assessing.

none

I'd have liked the opportunity to work with more people.

because this is a brand new project, there was a lot of discussion which was fine.

No real weaknesses as such - many questions need to be asked re: the feasibility of such a lengthy tool and so many adverse questions.

I do not feel ready to use this tool - the examples on the exam left me feeling frustrated as I knew where I would like to put her - so felt filling out all the spaces seemed inappropriate.

Too much and long hours.

Better practice assessments within the active care hospital could have been done if more planning had been arranged for families to participate.

Needed more guidelines before assessment on what was required for the practice session.

Having to do assessment all at one session (tiring for the client).

No prereading familiarization of manual; a lot of information in a short time.

Time to correct a specific case study. Case study test was very frustrating.

Not enough time to interview in the field.

Could use more time.

should have had a review of the user manual at the beginning.

3. What suggestions do you have for improving this course?

none at this time.

none.

I think as someone suggested this A.M., it would be a good idea to develop an instruction manual to go along with the one you have already given us with appropriate ways on how to extract the information.

The case study needed more information for total completion.

Yes. Words such as time periods - 0-6 months or 25 months; what happened to all time periods - days, weeks, months, years? and then one goes from maintenance down to improvement?? in between partial, total restoration??

A more complicated example to go over together.

one extra day.

It would have been more helpful to read the instruction manual before filling out the case study from the video; the sequence would have been helpful to me.

Distribute the manuals and sample assessment as pre-reading.

Thank you - a workshop well done.

Lets do that case study a part at a time, and then discuss method.

More time allotted for the exercises.

Case study - videotape needs improved; perhaps have 3-4 people interview one person (role paly) so they can all discuss answers and solicit feedback.