ABSTRACT
              Experts' opinion is proposed as a valuable evaluation
tool. Advantages of this method include the relative cost
effectiveness when compared with other data collection methods. It is
a time-saving method important in formative evaluation when a
decision must be made concerning implementation of a course of
action. When experts are carefully selected, their opinions add to
the credibility of the evaluation. Experts' opinion may be used for
the assessment of project goals and strategies which need to be
evaluated at an early stage of the project. A systematic process for
using experts' opinion consists of five major stages: (1) object
identification; (2) sampling of experts; (3) presenting questions to
experts; (4) obtaining experts' responses; and (5) synthesizing
opinions. A large scale evaluation project, the Tel Aviv Evaluation
(TAE) Project utilized this process. The TAE was developed to
evaluate the projects included in the Tel Aviv Reinforcement and
Enrichment Program to provide decision makers with relevant
informtion to improve the Tel Aviv, Israel public schools. (DWH)

EXPERTS' OPINION: A POWERFUL EVALUATION TOOL

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INTRODUCTION

As part of the attempts to extend the scope of evaluation in recent years
(Nevo, 1983), it has been suggested that evaluation practice not limit
itself to the assessment of the results or outcomes of an evaluation object.
Stake (1967) made a distinction between descriptive information and
judgemental information in evaluation. He suggested that descriptive
information focus on intents and on observations regarding antecedents
(prior conditions that may affect outcomes), transactions (the process of
implementation) and outcomes of various types. Judgemental information
in Stake's approach is comprised of standards and judgements regarding
the same antecedents, transactions and outcomes. Stufflebeam's CIPP
Evaluation Model (Stufflebeam, et al., 1971; Stufflebeam, 1974) suggests
that evaluation focus on four kinds of information regarding each evalua-
tion object: (a) its goals, (b) its design, (c) its process of implementa-
tion, and (d) its out...mes. Guba and Lincoln (1981) suggested that the
evaluator collect five kinds of information: (a) descriptive information
regarding the evaluation object and its setting, (b) information respon-
sive to concerns of relevant audiences, (c) information about relevant
issues, (d) information on existing values, and (e) information on
standards relevant to the worth and merit of the evaluated object.

In addition to the general notion that program evaluation should broaden
its scope regarding the kinds of information to be collected on each
evaluated program, it has also been suggested that evaluation extend its
perspective regarding the stage of the program in which evaluation should
be introduced. Traditionally, the major use of evaluation has been in its
summative - retroactive mode to serve selection and accountability.
However, advocates of evaluation tended to point out its potential contri-
bution to planning and management if used in a more formative - proactive
mode. Scriven's distinction between Formative Evaluation and Summative
Evaluation (Scriven, 1967), and Stufflebeam's distinction between proactive

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evaluation intended to serve decision making, and retroactive evaluation to
serve accountability (Stufflebeam, 1972) inspired evaluators to introduce
evaluation into projects at their early stages of conception and structur-
ing. Used at the early stages of planning and implementation, evaluation
could help clarify goals and challenge some "taken for granted" assumptions
underlying the project. It could also provide information to choose among
alternative strategies of action or enable modification and improvement
of current activities.

If an evaluation of a project has to provide a wide range of information.
part of which is mainly needed at the early stages of developing the project,
then a fast and flexible evaluation tool is required. And that's where experts'
opinion comes in.

ADVANTAGES AND SHORTCOMINGS

Experts' opinion is probably one of the oldest evaluation tools in education
as well as other social domains. Policy-makers often seek the advice of
experts prior to making policy decisions. Research proposals are reviewed by
panels of experts prior to funding decisions. College and university faculty
members are assessed by c. leagues in their area of expertise when consi-
dered for promotion or tenure. Manuscripts submitted for publication in
refereed journals are reviewed by expert readers. With the professionaliza-
tion of program evaluation the use of experts' opinion has also been
recommended by many authors as a legitimate tool in systematic evaluation
(Stake, 1967; Reinhard, 1972; Lewy, 1977; Eisener, 1979). Reinhard (1972)
structured the use of "Advocate Teams" into a systematic procedure for "Input
Evaluation" according to Stufflebeams' CIPP Evaluation Model. Eisner has
used experts' opinion as a basis for the development of his Connoisseurship
Evaluation Model (Eisener, 1979).

The use of experts' opinion as an evaluation tool seems to have four major
advantages. First, it is an inexpensive evaluation tool compared to other

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procedures of data collection such as administration of tests or questionn-
aires, conducting observations or interviewing project participants and
other associated persons. The cost of obtaining experts' opinion regarding
a specific project is usually comprised of the cost of several "consult-
ing days" plus the cost of synthesizing theopinions if more than one
expert has been used. Second, experts' opinion is a quick evaluation tool.
In many cases timeliness is a very important consideration in conducting
evaluation. This is especially so in the case of proactive evaluation when
a decision has to be made whether to implement a certain course of action.
Most evaluation clients are eager to receive fast feed-back and in many
cases it seems impossible to postpone a decision for several months or
even years until a thorough evaluation has been completed. In such cases
using experts' opinion might be the only feasible alternative to not doing
an evaluation at all. Third, if experts are chosen carefully, their
opinions might be highly appreciated by various evaluation audiences,
thus adding to the credibility of the entire evaluation. Some evaluation
clients trust experts' opinions much more than empirical evidence obtained
from a controlled experiment and analysed by means of a sophisticated
statistical procedure.   For a novice evaluator opinions of some prestigious
experts on the project he has been evaluating can add a lot of credibility
to his evaluation report. The fourth advantage of experts' opinion is
that it can be used for the evaluation of a new project without it having
to be implemented. This feature makes experts' opinion an appropriate tool
for the assessment of project goals and strategies which should be evaluated
at an early stage to avoid the waste of resources used for implementing
untested strategies attempting to achieve unwarranted goals. Thus, experts'
opinion can be appropriate for Context Evaluation and Input Evaluation in
the CIPP Model (Stufflebeam, et al., 1971), or for the evaluation of
intended antecedents, intended transactions and intended outcomes in Stake's
Countenance Model (Stake, 1967).

And yet experts' opinions have shortcomings as well as advantages. They have been known for their subjectivity and inconclusiveness. The first shortcoming of this evaluation tool is related to the subjectivity of the opinions expressed by various experts affecting the reliability of the information provided. Another shortcoming is related to the fact that experts tend sometimes to be very careful in their responses thus hesitating to provide conclusive answers to the questions presented to them. This might not only limit the utility of experts' opinions, but also make the synthesis of their opinions a very difficult task. A third shortcoming stems from the fact that at an early stage in the life of a project (when experts' opinion is mostly used) it seems difficult to obtain a clear description of the evaluated project, including explicit statements of its goals and strategies. The lack of a valid characterization of the project might make it difficult to "present" the project to experts and ask them to review it. The last shortcoming is related to a possible shortage of experts in a certain area of expertise, creating difficulties for the evaluator in securing the cooperation of appropriate experts for his evaluation.

Those shortcomings of experts' opinion can be minimized when used in a structured and systematic way, as will be shown in the remainder of this article.

A SYSTEMATIC PROCESS FOR USING EXPERTS' OPINION

The underlying assumption of this paper is that using experts' opinion in a systematic way could enable us to benefit from the advantages of this tool while minimizing its limitations. In developing a systematic way for using experts' opinion five major issues have to be considered. They are: (a) object identification, (b) sampling of experts, (c) presenting questions to experts, (d) obtaining experts' responses, and (e) synthesizing experts' opinions. These issues could also represent

the major stages in a systematic process of using experts' opinion. We shall describe these stages and present a large scale evaluation project in which these stages have been developed and applied.

(1) Object Identification

The object of the evaluation (program, project, material,etc.) should be sufficiently described so as to be clearly identified when presented to experts. Such a description should include the goal(s) of the object, its target population, its strategy, its administrative structure, its plan of action, its personnel and the resources at its disposition. If such a description is available in one of the documents of the evaluated object (e.g. the funding proposal), it can be used to present the object to the experts. If an appropriate project description is not available, the evaluator should develop one. He should prepare a written description of the project on the basis of his interaction with project personnel and review of relevant documents (if available). He should also ask the project personnel to check the factual accuracy of his description and make sure that it has been approved by the project director prior to its presentation to the experts.

(2) Sampling of Experts

A careful choice of experts is a major factor in establishing the credibility of their opinions. Although random sampling is not feasible, in most cases an unbiased sample of experts can be obtained by using the following criteria: First, experts who are or have been associated with the evaluated project should not be included.   Experts who are known for their extreme support or opposition to the project should also be excluded.   Second, the sample should represent a wide

range of expertise relevant to the nature of t e evaluated
project. For example, the evaluation of a re   mprehension
individualized instruction project might r i ju   experts in
reading, in individual_zed instruction and in curriculum develop-
ment. Third, the sample should include not only scholars from
the academe, but also practitioners who practice their
expertise within the educational system. The credibility of
academics and practitioners varies among different evalua-
tion clients. Finally, if more than one expert fits each of
the categories in the second and third criteria and is willing
to cooperate, random sampling should be used within each
category. The size of the sample should be determined accord-
ing to the size of the project and the resources available
for the evaluation. Usually three to ten experts are used
for typical educational projects.

(3) Presenting Questions to the Experts

When the description of the project is presented to experts
it should be accompanied by a set of specific questions that
they have to address. The use of one general non-specific
question (.e.g. "What do you think about this project?")
is strongly discouraged. The specific questions to be asked
should be developed on the basis of the nature of the project
and the information needs of the evaluation clients. The
questions will usually be related to the appropriateness of
the project goals, the worth of its strategies and plans of
action, and the prospect of the project to affect its target
population. The same set of questions should be used for all
experts. However, specific sub-questions could be added to
those presented to some or all of the experts according to
their area of expertise.

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(4) Obtaining Experts' Responses

Experts have to be approached in advance to make sure they give their consent to provide opinions on the project within an agreed-upon period of time. In many cases, it is easier to convince experts to render their services to the project if they commit themselves to the project (e.g. on the phone) before materials have been sent out to them. With those experts who fail to deliver their written responses on time an appointment should be made to obtain their opinions orally. These responses have to be recorded by a member of the evaluation team. Later on the experts should be asked to check the factual accuracy of their recorded responses. This procedure is intended to increase the response rate in the original sample of experts, and minimize the sampling bias that might be created by the drop-out of experts who are "busier" (and also better?) than others. Experts from whom it seems impossible to obtain responses even orally have to be dropped from the sample, They should be replaced by others using the same sampling procedure described in stage 2.

(5) Synthesizing Experts' Opinions

For most evaluation clients it might be difficult to benefit from a set of opinions provided by a group of experts unless they have been synthesized into one composite summary. It is the responsibility of the project evaluator to conduct such a synthesis for the benefit of his client. Although this is a very tricky task   requiring skills which are a combination of craftsmanship and artistry, some guidelines can be suggested for the evaluator. First, the organizing framework for the synthesis should be the set of common evaluation questions that have been presented to the experts. The opinions should be analyzed and synthesized by evaluation questions

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rather than by the overall stance of the various experts (e.g.
positive, negative, or neutral), or their area of expertise.
After each question has been addressed in the synthesis, an
overall conclusion regarding the entire project may also be
presented. Second, the evaluator should write the summary in
his/her own words, using quotations to support his conclusions
and providing the complete records of experts' opinions in an
appendix. This would allow critical audiences to question the
validity of the synthesis, or to obtain additional information
according to their specific interests. Third, if feasible, the
synthesis should be developed independently by two members of
the evaluation team. The differences - if any - between the two
syntheses should later on be discussed in an attempt to reach
a consensus on a single synthesis that would be presented to
the evaluation clients. Fourth, the evaluator should remember
that an inconclusive answer is also an answer for a question
where a conclusive answer is not warranted. Such an answer
might also have practical implications and should therefore be
reported without hesitance. An inconclusive answer might suggest
an experimental implementation of the project followed by
evaluation, while a conclusive negative answer might suggest
project termination, and a conclusive positive answer might be
followed by full implementation of the project without any
further evaluation. Finally, the validity of the synthesis of
experts' opinions should be established by confronting its con-
clusions with those suggested by other sources of information
such as previous evaluations of similar projects or relevant
research studies. Thus, the answers provided by the experts
to at least part of the questions, should be confronted with
answers to the same questions that would be inferred from a
review of relevant research literature or from a systematic

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meta-analysis of available research findings. Such a confronta
tion could add to the validity of the experts' opinions as
well as to the validity of the synthesis of those opinions.

This process has been used in a large-scale evaluation project which we
shall describe next.

USING EXPERTS' OPINION FOR THE TEL AVIV
EVALUATION PROJECT: AN EXPERIENCE

The Tel Aviv Evaluation Project (TAE) has been developed to evaluate the projects
included in the Tel Aviv Reinforcement and Enrichment Program (REP) so that
decision makers in the local educational system could be provided with
relevan information in their attempts to improve the schools of Tel Aviv.
In the 1983/84 school year, the program included 12 projects, three of
which were at the kindergarten level, five at the elementary school level
and four at the high school level.

Three major evaluation questions were addressed by the TAE project: (a) are
the REP projects based on acceptable educational approaches providing a
reasonable chance to affect the projects' target population? (b) are the
projects being implemented as planned and efficiently? and (c) do projects
which are directly intended to change students' behaviour have an impact
on students' achievements, their attitudes towards school and their social
acceptance in their classes? These questions were asked both in relation to
the whole program as well as in relation to each single project included in
the program. The two major tools used to address the first evaluation ques-
tion were systematic reviews of relevant research literature and experts'
opinion. We shall describe here the way experts' opinion was used in the TAE
project to address the first evaluation question in relation to the whole
program. This experience served as a basis for the development of a systematic
process of using experts' opinion as presented in this paper, as well as a
case study of its implementation.

Applying the process of using experts' opinion in the TAE project followed the stages presented in the previous section.

In the first stage (object identification) we decided to use the annual REP plan as a description of the project. This document has been prepared by the local education department of Tel Aviv, as a funding proposal for the city council. The proposal was an extensive document (about 60 pages) which included an introduction presenting the general goals of the program. Most of it was devoted to a detailed presentation of the various reinforcement and enrichment activities planned for the schools of Tel Aviv, and the resources needed for their implementation. This was the version of the proposal that has been approved by the city council with some minor changes in the budget. Although most of the proposal had the nature of a budgetary document and its introduction was not specific enough about the rationale of the project, we decided to use it as an "identification document" of the project mainly for its authenticity. We thought that in spite of its flaws, it is an authentic representation of the nature of the object of our evaluation. Therefore, this was the document that had been sent to the experts.

In the second stage we sampled our experts. We had consulted our clients and other stakeholders of the project and decided that we need to have in our sample of experts representatives in the areas of enrichment and reinforcement for disadvantaged students at kindergarten, elementary school and secondary school level. It was also apparent that only some of the experts should be from the academia and that the practitioners should represent various administrative levels in the educational system (teachers, principals, supervisers, and high level administrators). In addition we had two constraints: persons associated with the project had to be excluded, and the total number of experts in that sample had to be limited to a maximum of $N = 10$. Obviously, we had to make some combinations in the desired characteristics of the experts to function within the limits

of those constraints. We ended up with a sample of nine experts who represented a wide range of expertise and other requested characteristics (even sex...) as can be seen in Figure 1.

Figure 1 about here

At the third stage we developed the questions for the experts. These questions, presented in Figure 2 were developed on the basis of interface with the clients of the evaluation and our preliminary analysis of the project proposal. The questions represent the major concerns of the clients, as well as our understanding of the evaluation problem at that stage of the evaluation.

Figure 2 about here

The questions presented in Figure 2 were included in the cover letter that was attached to the project proposal that was then setnt to the experts.

The experts were contacted by phone and their consent to respond to our request was obtained prior to the mailing of the letter and the proposal. They were asked to answer the questions in written form, within two weeks. However, only four of them responded in writing. The others who did not respond within a period of four weeks were interviewed, and their opinions recorded by the project staff. Those recorded responses were sent back to them to be checked for their accuracy. A total period of eight weeks was needed to obtain all the responses from the experts in written or oral form.

The experts' opinions were synthesized according to the five questions
that they were asked to respond to. The synthesis was submitted to the
clients less than three months after the evaluation project had begun.
Although it is beyond the scope of this paper to present the content of the
responses obtained from the experts, it seems to be important to point
out that the experts' opinions were perceived by the evaluation clients
as very relevant information. The evaluation clients also seemed to
appreciate the fact that such information has been provided less than
three months after the beginning of the evaluation. Such speed proved
a surprising experience for our evaluation clients, and served as a good
start for the whole evaluation project.

We hope that the experience reported in this paper proves valuable to
evaluators interested in broadening the scope of their evaluations and
using experts' opinion in the light of its advantages and shortcomings.

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Figure 1: The Sample of Experts

1.	Mr. M.A.	High school principal
2.	Mr. S.B.E.	Director of the department for disadvantaged students in the Ministry of Education
3.	Mr. A.G.	Regional supervisor in the Ministry of Education
4.	Dr. R.M.	Regional supervisor on kindergartens in the Ministry of Education
5.	Dr. D.F.	University professor specializing in enrichment programs and reading
6.	Dr. Y. K.	Educational sociologist specializing in culturally disadvantaged students
7.	Dr. A.S.	Faculty member at a school of education specializing in the culturally disadvantated
8.	Dr. O.S.	University president, ex dean of a school of education, and director of research in the Ministry of Education
9.	Ms. D.S.	Elementary school teacher specializing in individualized instruction.

Figure 2:   Questions Presented to Experts

1.   Does the proposed program comply in your opinion with
          acceptable educational approaches?

2.   Does REP include any activities that you would recommend
          not to implement because of a potential harm to students
          or the educational system?

3.   What do you think is the probability of the various projects
          included in REP to achieve their goals? Name those with
          high probabilities, and those with low ones..

4.   To what extent does the enclosed document provide adequate
          guidance to those who have to implement the program?

5.   What would you suggest to change or improve in the various
          projects to increase their chances to succeed?