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Why Questionnaires?

A questionnaire is a list of questions on a printed form to be filled out by respondents usually in the absence of the evaluator. Like interviews, questionnaires are a way of obtaining information from persons by *asking* them rather than observing and recording their behaviour. The questioning of respondents provides information on what a person knows (factual knowledge), what is liked and disliked (values and preferences, attitudes and beliefs) and on biographical and background information (personal details, relationships, what has happened, and is happening in a situation). Questionnaires attempt to collect much the same information as interviews but surrender the ability to investigate issues in depth for the speed and convenience which characterises this technique.

Questionnaires are generally used to gather information on a specific topic from a large number of people, although they are sometimes used to gain in-depth information on a topic from a small group of people.

As the development of a questionnaire requires some background knowledge of the evaluation topic, it may be necessary to use interviews prior to a questionnaire, in order to provide this background information. Supplementing the questionnaire strategy in this way will ensure that an adequate background exists to facilitate questionnaire design and distribution decisions.

Advantages and Disadvantages of Using Questionnaires

A short overview of the advantages and disadvantages of the questionnaire technique has been given in Booklet Three. However, it is appropriate to examine, in greater detail within this booklet, the characteristics of the technique in terms of its major disadvantages and advantages.

With a suitable return rate, carefully designed questionnaires distributed to an adequate sample of respondents will provide representative information on issues of concern to the evaluation program. In general, questionnaires are inexpensive to produce, easy to distribute (especially within schools) and relatively simple to analyse, particularly when information is reduced to numerical form. However, the careful construction of questionnaires can, depending upon the topic, depth of coverage and nature of the respondents, be a time-consuming process.

When using questionnaires it is helpful if investigators remember that the information provided by them is based on what people say they know, think or believe not on what they *do* know, think or believe, although in many situations this difference will be minimal. It is assumed when using this technique, that respondents report how they view issues rather than report what they believe the evaluator wants to know. This can be a weakness in such methods but is one which must be accepted.

Three major limitations characterise the technique:

1. The high degree of structure, although seen as being efficient, does restrict the flexibility of the technique especially when compared with the interview.
2. Scope of coverage is emphasised, not depth of coverage of the topic.
3. Control of the number and quality of responses is surrendered by the evaluators when the questionnaire is distributed.

The restricted flexibility of the questionnaire is based upon the fact that it is an instrument which may not change in structure once it has been distributed to respondents. Questions remain the same for all respondents in all circumstances. This is valuable, in that information from respondents is more uniform, thereby facilitating ease of collation and interpretation.

It is difficult to investigate issues in depth using a questionnaire. The use of open questions and the limited use of probing questions permits in-depth investigation to some degree, but does not permit the depth of investigation which is possible in a technique such as interviewing. Questionnaires will usually emphasise collecting a wide range of information rather than in-depth information on a limited topic.

The problem of control is one which is an essential characteristic of the technique. Once questionnaires are distributed the evaluator has no control over what respondents

do with them. Questions may be misinterpreted or not answered, or the form not returned. Careful design of questionnaires can overcome this problem to some degree. Keeping the focus of the questionnaire narrow and ensuring that respondents see purpose in the task are two major design considerations which can assist. Design strategies are discussed in depth in the following section.

From this outline of the characteristics of the technique it should be apparent that questionnaires are most suitable for surveying large groups of people on a number of limited topics. The ease of distribution and analysis are the major factors supporting the technique while the inflexibility of the approach limits the range of issues which can realistically be included. If possible, the questionnaire should be used as one of a number of strategies to study an issue.

Steps in Questionnaire Design

The development of a questionnaire which has the potential to collect relevant and valid information to meet the information needs of an evaluation program is a procedure which must be undertaken carefully and with a thorough understanding of the processes involved. Initially, such a task will be slow and occasionally difficult. However, as with most tasks, practice will assist in more skilful command of these procedures.

For the benefit of clarity, the design of questionnaires is discussed in this section as a logical sequence comprising a number of separate but interrelated steps. While such a systematic procedure is valuable for understanding the design process, practice in questionnaire design will reveal that the steps outlined are often not as obvious as this presentation would make them appear. Listed below are the major steps usually followed in questionnaire design. Each step will be discussed sequentially in the following sections.

1. Define the purpose of the study, the areas of concern and the anticipated use of evaluation findings.
2. Define who is to be surveyed.
3. Draft a pool of questions.
4. Select the most relevant questions.
5. Redraft questions into an acceptable form.
6. Decide on the questionnaire lay-out.
7. Draft the instructions for completing the questionnaire.
8. Try out/review the questionnaire.
9. Redevelop questions and revise questionnaire lay-out if indicated by the review.
10. Distribute the questionnaire.
11. Collect the questionnaires.
12. Follow up non-respondents.

In following these steps, it will be assumed that the questionnaires used in schools will be completed without assistance from an interviewer and will not involve statistical or computer based analysis. References to assist in using computer facilities to analyse questionnaires are provided in the *References and Further Readings* at the back of this booklet.

STEP 1: DEFINE THE PURPOSE, AREAS OF CONCERN AND ANTICIPATED USE OF EVALUATION FINDINGS

Each evaluation task has an underlying rationale, whether identified or hidden, which sets out why the task is being undertaken and how the issues arose. It is important from the beginning that such purpose(s) be identified. Once this has been done, it is then possible to outline the areas of concern (derived from the purpose) which the questionnaire will address. These areas will usually be limited to a small number of specific issues which

can be clearly defined from the purpose of the evaluation task. An example taken from one school's evaluation program is given below:

Purpose To establish levels of use and teacher perceptions of the adequacy of audio-visual resources within the school.

Issues
1. Teacher use of those audio-visual resources always kept in the library.
2. Teacher use of portable audio-visual resources which may be borrowed.
3. Purposes for which teachers use audio-visual resources.
4. Teacher perceptions of the adequacy of these resources.

Identifying the purpose of an evaluation goes beyond simply listing the general aims of the evaluation. It is also important to consider the audiences of the evaluation and the anticipated use of the findings. It should be recognised that each audience for whom the evaluation is being carried out will have its own expectations of the evaluation task, and that identification of these expectations can provide valuable insights into the purposes of the evaluation. Consideration of audience expectations will ensure that the most pertinent issues are included in the evaluation and that maximum use will be made of the findings. To assist in this task answers should be sought to the following questions:

What information is required?
Who wants the information?
Why do they want the information?
Who will use the information?
For what purposes will they use it?
Who will benefit from it?
What will be the result of this information gathering?

STEP 2: DEFINE WHO IS TO BE SURVEYED

Who can best provide the information which the survey intends to collect? Initially, the population of respondents has to be identified. This is the total group of people who could possibly provide the information. If this population within a school is small (such as all teachers in one year level or teaching one subject), it may be decided to include all of them in the survey. Because of the small number of people within a school (e.g. staff) from whom information is sought, it is frequently not necessary to sample within a school. However, if the population is large it may be more economical, because of time and other factors, not to include every member in the information collection procedures. In this latter case it will be necessary to select a representative sample of the population from which information can be collected. This sample will be the group to be surveyed using the questionnaire.

In defining whether a group is large or not, a rule of thumb can be used: if the number of people is difficult to cope with and the amount of work in gathering and collating information is unwieldy, the group could be considered large.

The most appropriate technique for choosing a sample for school based evaluation purposes is random sampling. Simple random sampling can best be illustrated by drawing names out of a hat. All the names are placed into the hat and mixed. Each name has an equal chance of being drawn, but once the name has been drawn it is not returned – it can only be drawn once. This is a fairly simple procedure which can be easily used and will give unbiased results.

A variety of sampling procedures is available for ensuring that a representative (that is, the sample which best represents the characteristics of the population) sample is chosen. A number of books on the topic are listed in the *References and Further Reading* section of this booklet.

Preliminary work, such as interviewing, is very important because the characteristics of the group and background on the issues to be surveyed are vital to the design of the questionnaire. This information provides a framework within which questions can be developed. Such background population information as general level of education, level of expertise in issues under discussion, interest in the evaluation topics, involvement in the school, language spoken in the home, are valuable aids in the development of survey instruments. Such information can be sought, not only from formal investigation but also from informal discussions with staff and parents familiar with the school community.

STEP 3: DRAFT A POOL OF QUESTIONS

Following the identification of areas of concern, groups of questions about each area should be developed in rough form. This could be done by brainwriting (as discussed in Booklet 9) or by an individual alone through such activities as interviews and informal discussion. The major purpose at this stage is to develop a large pool of questions which embraces all areas of interest in the survey. It is not important at this stage to consider wording or structure but rather to be concerned with covering all areas of possible interest. Scope, not detail, is the priority. In order to facilitate use of this question pool in later stages, it is helpful to organise it into topic areas once all the draft questions have been developed.

STEP 4: SELECT THE MOST RELEVANT QUESTIONS

The pool of questions developed to cover all areas of concern needs to be reduced to those questions which will collect the most relevant information. In this step, the focus of concern narrows and the boundaries of investigation are more tightly drawn. As the questions within the pool are reviewed for inclusion in the survey, they can be assessed initially using the following criteria:

Is the question repeated elsewhere in a different form?

Is the question necessary? Does it relate directly to the topic? Does it seek irrelevant biographical and background information?

Can the information be obtained more effectively and accurately from other sources (unless of course you are asking the question to check other sources)?

Are there too many questions or too few questions in a topic area?

Is the question likely to be understood by the respondent?

Have the respondents the necessary information to answer the question?

Will the respondents provide the information requested?

Does the question request the respondent to work at something without prior warning (e.g. retrieve files or collect examples)? These questions should not be used unless they are essential, in which case they should be minimised and the respondent forewarned.

Is the study concerned with opinions? Only include opinion questions when they relate directly to the study.

While decisions on the retention of questions are usually made at this stage, the addition, modification and deletion of questions and their redesign continues as the questionnaire develops. However, as a rule, the number of questions generated usually decreases as the development of the questionnaire continues.

STEP 5: REDRAFT QUESTIONS INTO AN ACCEPTABLE FORM

Once questions have been selected for inclusion within the questionnaire, decisions must be made concerning the final design of questions by rewording and formatting, and the final structure of the questionnaire form.

There are three considerations when redrafting items: the type of item to be used, the type of response which should accompany each item, and the proposed method for collating and analysing the information provided by items.

Designing questions to maximise their information collection potential involves consideration of the types of items which may be used, the most appropriate way for respondents to answer questions (response formats), the wording and order of questions and page layout. *Because of the scope and detail of these procedures, they have been included as Appendix A.*

The analysis of information should also be considered in the design of questions. Questions should make the information available in such a form that appropriate analysis can be done as simply as possible. For example, factual information such as numbers in classes and time measures can easily be obtained and answered, giving simple numbers which can be taken directly from the questionnaire form and quickly analysed. Conversely, information on opinions and reasons may be obtained from open questions and be in the form of statements. This cannot be taken directly from the questionnaire and analysed. Similar responses must first be collated prior to analysis. In the latter situation, the task is obviously longer and more difficult.

Clearly then, the planned analysis of the information should be considered when deciding upon the manner in which questions are to be answered.

Detailed procedures on the analysis of information is given in Booklet 9.

STEP 6: DECIDE ON THE QUESTIONNAIRE LAY-OUT

A neat, logical page lay-out which is visually pleasing will support all the other steps taken to produce a questionnaire of high quality. A questionnaire which is poorly laid out could lead respondents to reject it or, at least, to miss questions, misread and confuse items, or to place responses incorrectly. Several hints for good formatting and page layout are outlined below:

Number all questions sequentially using a simple numbering system.

Leave sufficient white space between items so that each question is obvious. Don't crowd the page.

Arrange questions and answer areas in distinct columns where this is possible.

With unstructured responses ensure that sufficient space is left for answers. Provide a spare page or space on the back of a page for extra writing.

Capitalise or underline important words or phrases in directions and questions.

If typing the questionnaire, use a type size which is easily read.

Don't leave blanks for responses (ticks or crosses) in multiple choice questions. Large crosses will often overlap two items. Use brackets (if typing) or draw neat squares or circles (if handwritten).

When using partitioning items use arrows, if possible, to direct respondents to the next set of questions.

In general the page should look neat, legible and well set out. There should be plenty of white space. Although this may spread the questions over more pages, it will make them easier to read and answer. Ease of answering is, in general, a more important consideration than size of questionnaire.

STEP 7: DRAFT THE INSTRUCTIONS FOR COMPLETING THE QUESTIONNAIRE

Drafting instructions for answering a questionnaire is a procedure which usually takes place in association with the development of questions and organising the page lay-outs. This step is therefore one which is spread over a number of tasks as construction of the questionnaire continues. Because of this, instructions frequently change over the period of development.

In designing instructions for completion of the questionnaire it is important to avoid overwhelming detail and, equally, to avoid extremes of vagueness. Instructions should be as few as possible to ensure that the maximum number of questions are correctly completed. They should be simply worded, be placed close to the relevant portion of the questionnaire, and where possible be accompanied by arrows or other symbols to clarify instructions.

General instructions for the completion of the questionnaire should include the following:

- when the questionnaire should be completed
- where the questionnaire should be returned
- the name of a contact person who can answer questions concerning the questionnaire
- a general indication of the time required to complete the questionnaire
- indicate the manner in which items should be answered.

STEP 8: TRY-OUT/REVIEW THE QUESTIONNAIRE

The questionnaire should now be ready to pilot in order to test whether the careful application of design considerations has indeed produced an evaluation instrument which will reliably collect the appropriate information.

Reviewing the questionnaire achieves several important goals. It permits the evaluator to:

- assess the relevance and acceptability of items
- isolate possible misunderstandings in questions
- assess the clarity of directions
- check the possible response rate when surveying a large population
- test for adequacy of response formats
- test the general organisation and presentation of the questionnaire.

The questionnaire can be reviewed in several ways. The most common of these methods are:

- review by a colleague
- review by an evaluator
- review by a single member of the population to be surveyed
- review by trying out the questionnaire on a small group of the population to be surveyed.

Of these methods the last is the most commonly used wherever possible. If the final sample is large, five to ten people could be selected for the trial. The questionnaire is issued to this trial sample in the same way as it is intended to be used in the full survey.

Include the same instructions and, if mailing the questionnaire, the same directions should be given in the introductory letter. When the questionnaires are returned, an analysis of the responses will indicate the areas where change will be required. Some of the most common indicators of the need for such change and the type of change indicated are shown in Figure 1. These changes are only indicated when a large proportion of the pilot sample respond in the ways listed in this table.

Figure 1: *Revisions Indicated from Pilot Responses*

RESPONSE TO ITEM	POSSIBLE PROBLEMS
The item is not answered. Respondents answer 'don't know', 'don't understand'.	Do the respondents have the information? Is the question clear, unambiguous, worded simply and with no double negatives? Is the question too personal or embarrassing? Is the question crowded out on the page by other questions and easy to miss? Is the question irrelevant to the topic? The most obvious problem will be that the question should not have even been asked, or it is being asked of the wrong people.
Irrelevant or qualifying comments are attached to the answer.	This may happen with some structured responses. Does the item take all possible responses into account? From the pilot comments make up new responses and try them out. Does the item relate to sensitive issues? Such an item may need to be reworded as an indirect item or preceded by an explanatory statement. If the comments are largely irrelevant, has the item a different meaning for the respondents than was intended? If so, reword the question in a simpler and, if possible, more direct form.
Respondents answer the items in the same way; there is almost no difference in the responses.	There is usually a pattern of responses across all the options given by the structured responses in a question. Although it is possible that within a group most members do think the same way about an issue, this is not common. When most respondents answer in the same way, it is important to check that the question (and its accompanying structured responses) is not so broad that differences of opinion will not be obvious among the replies, or that the question is extremely biased, allowing only one possible response for that particular group.

STEP 9: REDEVELOP QUESTIONS AND REVISE QUESTIONNAIRE LAY-OUT

STEP 10: DISTRIBUTE THE QUESTIONNAIRE

STEP 11: COLLECT THE QUESTIONNAIRES

The results of the piloting will indicate where changes are required and the nature of these changes. Once the questionnaire has been redeveloped in line with the pilot results mentioned above, it is ready for dissemination.

Prior to being distributed, an accompanying letter should be written and printed for distribution with the survey form. This letter should state the nature of the survey, its purposes, audiences, usefulness and who it is to be used by. A guarantee of confidentiality and commitment to feedback should be given. The name, address and telephone number of a contact person within the school should also be given.

To facilitate the collection of the questionnaires a suggested date of return should be given, accompanied by clear instructions on where to return the questionnaire. If questionnaires are to be posted, it is advisable to include pre-addressed reply paid envelopes for respondents to return their questionnaires, as it has been shown that this increases the number of questionnaires returned.

STEP 12: FOLLOW UP NON-RESPONDENTS

Some people will not return the questionnaire by the date due. Several procedures are available to prompt these respondents into completing and returning their questionnaire.

The most effective method is to approach people personally, asking if they require help in completing the questionnaire and requesting them to return it as soon as possible. A telephone call, if possible, is the second choice if a personal visit is not possible. If a personal contact is not possible, a short note offering assistance and requesting the survey form should be sent to those who have not returned it. A new questionnaire could be enclosed in this letter in case the first was lost. This procedure should be repeated one week later. If people have not replied by then, in all probability the questionnaire will not be returned.

It is important when following up respondents that a helpful and courteous approach be used. The survey is totally dependent upon the goodwill of the respondents who deserve to be treated with all consideration.

CONCLUSIONS

Use of the guidelines outlined should produce a questionnaire which efficiently collects appropriate information.

Some of the characteristics of a good questionnaire may be summarised as follows:

1. Does not seek information which can be gained in a more appropriate way.
2. Asks important and relevant questions.
3. Obtains the required information.
4. Minimises undue reliance upon memory in answering questions.
5. Restricts open questions to essential areas.
6. Asks questions which are clear, unambigious and not leading.
7. Allows questions to be answered quickly and easily.
8. Does not introduce bias by severely restricting answer choice.
9. Includes an adequate range of choices in all checklists.
10. Minimises or, if possible, avoids sensitive or potentially embarrassing questions.
11. Allows adequate space for answering open questions.
12. Arranges items in a logical order.
13. Is short enough so that it will not be rejected by respondents for taking too much time.
14. Has an attractive appearance and is of enough interest to respondents for them to complete.
15. Asks questions in such a way that the respondent is protected from embarrassment.
16. Has been trialled to aid identification and deletion of bias and to refine purpose.

It may have appeared from the discussion to this point that questionnaire items are developed by a logical sequential process over a period of time. While this is certainly desirable, it is rarely the case. The many considerations of item type, response formats, required information, characteristics of the sample to be surveyed, are usually forced upon the evaluator at once as information is often required in a short time. However, when attempting to develop a questionnaire it is valuble to consider sequentially each of the topics so far discussed in the order presented. Within this sequence it is essential to consider the purpose, information needs, and planned use of the information before all other concerns, followed by consideration of the type of item and finally the type of response format.

This booklet has attempted to outline the appropriate uses, characteristics and design considerations for using questionnaires within a school based evaluation program. Although the apparent complexity of this technique may be initially daunting, the reader is assured that the technique can, when used with care, produce relevant information to meet evaluation needs.

An example of an evaluation study which used a questionnaire as the information collection technique is outlined in Appendix B.

Appendix A: Considerations in the Design of Questionnaire Items

In the design of questionnaire items two major considerations exist: the type of item to be used and the type of responses most appropriate to each item. In this appendix the range of items and responses, question wording and question order will be discussed. More detailed information on these topics is available through use of the sources listed in the *References and Further Readings* section.

TYPES OF ITEMS

The name 'questionnaire' is sometimes misleading. Examination of a number of questionnaires will reveal that they comprise two different types of items – questions and statements.

Questions similar to those shown below, are widely used in surveys, especially when requesting factual or descriptive information.

Should community languages be taught at Strathpark High School?

YES ☐ NO ☐

Should French and German be taught in the Secondary Department?

YES ☐ NO ☐

When used to survey opinions and beliefs, questions are usually combined with statements and are more subtly worded. Statements often complement a question by introducing a topic and giving some background to the question. Statements have proven to be valuable aids in the measurement of opinion, attitudes and beliefs, especially when used with a scale on which people mark how strongly they agree or disagree with a statement. These scales are called Likert scales after Renis Likert, their originator, and are normally worded as set out below.

	Strongly Agree	Agree	Disagree	Strongly Disagree
Community Languages should be taught at Strathpark State High School.				
French and German should not be taught in the Secondary Department.				

In this example, one of the statements is positively worded while the other is negative. When using statements, a balance of positive and negative statements assists in ensuring that respondents use the full range of the scale. Some respondents may think that all

statements are positive and merely tick all the 'agree' columns. A balance of positive and negative statements helps overcome this 'donkey effect' and may prompt respondents to read the statements more carefully.

When constructing items, the evaluator must be aware of several potential problems which commonly arise. The principal consideration in designing items is to ensure that the meaning of the question is clear to the reader. Problems which most often occur are those which confuse the meaning of the item or those in which the item could be interpreted as having more than one meaning. The major problems are: double-barrelled items, double negative items, prestige bias in items, leading questions, emotionally loaded items, embarrassing items, and items which assume prior knowledge. These considerations are discussed in the section on question wording.

TYPES OF RESPONSES

In choosing the types of items which are to be included in the questionnaire, it is important to consider the way in which the items are to be answered, i.e. the format of the responses. When selecting response formats it is vital to consider the type of information analyses which are to be done. The structure of the response should assist in making the appropriate analyses as uncomplicated and as easy to complete as is possible.

Three response formats exist: unstructured or open format, structured or closed format, and semi-structured format.

Unstructured Format

The unstructured format asks the respondents to supply their own answers in a space provided and is used when little information about the possible range of answers is available or the possible answers will be complex, e.g. examination of causes, or of relationships between particular events. Such a response is not controlled by the evaluator as is, for instance, a multiple choice structured response where a respondent may be requested to choose one of five answers provided. The only controls which the investigator can impose upon the unstructured response is in the wording of the question and the amount of space permitted to answer it.

The unstructured response allows the person answering the maximum freedom to reply to the question in any way felt suitable. Because of this, a variety of answers may be given which may be difficult to analyse and interpret. However, such answers do give a more realistic view of the topic without the restrictions imposed by other response structures. An example of a typical unstructured response is given below.

Why do you think these resources are essential? . . . .

. . . .

. . . .

. . . .

Frequently a vacant response space will be provided with a multiple choice structured response, to allow for unforseen answers. This type of response is termed a residual category because all the left-over (or residual) answers are placed in it. However, it should be noted that this is not an unstructured response as only a certain range of answers can be provided. An example of this is shown.

Which community languages have you previously taught?

1. Greek ☐
2. Italian ☐
3. Serbo-Croat ☐
4. Mandarin ☐
5. None ☐
6. Other (please name) ☐

Structured Responses

Structured or closed responses provide a limited number of possible answers from which the respondent is requested to choose one or more answers. Although a residual category is often provided with structured responses (to ensure that all possible answers are catered for), the aim of this response format is to limit responses to predetermined answers. The use of this response format, while limiting the variety of information provided, gives a uniformity of responses which facilitates information analysis.

When constructing structured responses two requirements should be met: the answers which have been chosen should account for all possible responses, and the answer categories should be mutually exclusive. When selected responses are mutually exclusive there is not overlap between the categories in which responses can be made. The example below illustrates these two points.

What transport facilities do you most often use to attend school?

Car ☐
Bus ☐
Bicycle ☐
Road ☐
Rail ☐
Other ☐

All possible answers are catered for by this question. The major modes of transport are listed with other modes of transport being covered by the use of the residual category. However, one fault has been made in the design of this item: the response categories are not mutually exclusive. The category 'road' overlaps the three categories which precede it – Car, Bus and Bicycle.

When using structured response modes it is usual to request only one response to an item. Occasionally, however, it may be desirable to request respondents to choose a number of answers to a question, but the responses provided will still be mutually exclusive. These multiple-response items are frequently difficult to interpret and should be minimised.

Structured responses take many forms, which are, in general, variations on what is commonly termed the multiple choice response. A number of specific multiple choice responses are found in questionnaires: the general multiple choice response, the ranked response, the scaled response, the categorical or dichotomous response and the partitioning response.

The General Multiple Choice Response

This type of response consists of several pre-specified answers associated with a particular question or statement. Items similar to that below will be familiar to most readers as a general multiple choice response.

In which of the following discussion groups would you participate?

(a) School Philosphy and Goals ☐
(b) School Administration ☐
(c) School-Community Relationships ☐
(d) Staff-Student Relations ☐

Ranked Responses

Ranked responses are another variation on the multiple choice format. In this situation the evaluator asks the respondents to rank order the choices in terms of a particular criterion. The criterion is normally expressed as part of the item stem. The example below illustrates this.

Rank the following resources in terms of their importance in supporting your classroom activities (1 = most important, 5 = least important).

(a) Remedial/Resource teacher ☐
(b) Guidance officers ☐
(c) In-service programs (vacations) ☐
(d) In-service programs (school withdrawal) ☐
(e) Advisory teachers ☐

The criterion stated in this example was *importance to the classroom program*. Ranking forces respondents to examine critically the relative importance of each of the choices outlined in the question; it forces respondents to choose among alternatives. This forced choice is both the strength and weakness of the method, in that although the respondent is forced to make a choice, this may occasionally be a choice which does not accurately reflect his true feelings on the question. In order to ensure that ranking is used appropriately, it is necessary to be sure that the choices are comparable and that they reflect a genuine range of real life choices. Ranking of items is also easy to analyse when the full range of choices is used, i.e. when five choices are provided, a rank is assigned to each choice.

Scaled Responses

Scales are frequently used to describe respondents' agreement with a statement or to describe their own reaction to a specified situation. The scale is used to allow the respondent to note the degree to which he agrees with the statement. Common scales ask respondents to provide information on frequency or agreement and as a result can be allotted a score, thereby facilitating analysis.

Some scales comprise an odd number of gradations in which the midpoint is specified as a neutral comment. Frequently respondents use this neutral response more than would be expected, leading evaluators to believe that many people do not give genuine consideration to the statement or the possible responses. In order to overcome this problem some evaluators use scales with an even number of graduations such as a four-point scale. The effect of such scales is to avoid the neutral midpoint, forcing respondents to choose between responses which are more obviously positive or negative.

Some common odd-numbered scales are shown below.

EXAMPLE 1: a 5-point scale
After considering all things, what would be your overall assessment of the program? (Please tick one box only).

excellent	good	fair	poor	very poor
☐	☐	☐	☐	☐

EXAMPLE 2: a 3-point scale
How did this year's program compare to that run last year? (Please tick one box only).

No difference	Some difference	Great difference
☐	☐	☐

EXAMPLE 3: a 4-point scale
In general what degree of change has taken place as a result of the evaluation? (Please tick one box only).

Much Change	Some Change	Very Little Change	None
☐	☐	☐	☐

In order to assist you in using rating scales, lists of commonly used terms are provided in Appendix C. Notes on the analysis of information from scaled items are provided in Booklet 9.

The scaled response can also be used as a matrix. This is particularly useful when a number of questions have the same set of answer categories, such as a scale. The matrix format uses space efficiently and is easy to answer and analyse. However, when using a matrix with a large number of questions, it is frequently easy to lose perspective of the scale and become confused. The next example illustrates this format.

EXAMPLE 4: Scaled Responses Matrix
Beside each of the statements listed below please indicate (✓) whether you:

Strongly Agree – SA
Agree – A
Disagree – D
Strongly Disagree – SD or are
Undecided – U

	SA	A	D	SD	U
(a) The basic aim of this school is to prepare students for the workforce.					
(b) Students seeking tertiary entrance should be segregated from other students.					
(c) The school program should concentrate on the average and below average student.					

This format has the same difficulties as other scaled responses in that respondents may choose to select the neutral point on the scale and ignore the other choices. They may also assume that all the statements are similarly positive or negative and not read them. Ways to overcome some of these problems will be discussed in the next section on question wording.

Categorical or Dichotomous Response

Many of the questions asked require respondents to choose one of two answers, termed a dichotomous (two) choice. Typically, the responses will be Yes/No, Agree/Disagree or a similar choice.

Unless used where only two real choices exist (such as sex – male/female) this type of question can be misleading. In many situations, presenting only two possible answers forces respondents frequently to choose a response with which they do not necessarily agree. This has led to a third category often being added to many dichotomous questions, such as: 'don't know', 'either', 'neither', 'no option'. When this third choice has been included in questions more people answer the item because it gives them freedom to express an opinion not covered by the dichotomous questions.

This third, or neutral choice, should only be included in an item when it may be impossible for some people to choose between the other two answers. This is more common in the case of opinion questions. In a factual question such as that requesting one's sex, the choice is obviously dichotomous.

Although this type of question is possibly the simplest, it must still be carefully thought out. With such a limited number of choices a misunderstanding of the question, such as when the question is negatively worded, could reverse the respondents answer. Examples of this type of response are shown below:

Did you participate in any in-service programs last year?

YES ☐ NO ☐

The library has ample book resources in the social science area:

TRUE ☐ FALSE ☐

Partitioning Response

To this point the response modes discussed have been concerned with the collection of specific types of information such as ranks, scales or general information. There is another type of response which is concerned not only with information collection but with information collected from a specific sub-group of the respondents. This type of response sorts out or partitions the group of respondents into those who meet a specific condition for belonging to a special group and those who don't. This is known as a partitioning response. The example below illustrates this type of response.

12. Have you ever taught a community language as part of a school program?
    YES Please answer questions 13–15.
    NO Please skip to question 16.

13. Which language did you teach? ....

14. At what year levels was this language taught?
    8☐ 9☐ 10☐ 11☐ 12☐

15. Over what time period did you teach this language?
    ☐ 1 Semester ☐ 2 Semesters ☐ 3 Semesters
    ☐ 4 Semesters ☐ > 4 Semesters

16. Have you ever taught within a school which operated a community languages program?

NO ☐

YES ☐ Which school? . . . .

This question has divided the group into those who have taught a community language and those who have not. Each group is directed to answer specific questions on the basis of this partitioning. There are several methods of partitioning. A condition can be built into the item rather than into the response as in the item below:

12. If you have taught a community language as part of a school program please answer the following questions.

The condition can also be stated as an instruction in the questionnaire to direct respondents to specific groups of items e.g.

go to question 10.

Semi-Structured Responses

Between the totally unstructured and structured response are a number of semi-structured forms which by their wording restrict the information which a respondent can supply. The major difference between the semi-structured and the structured response is that the range of possible answers is specified in a structured response, while this is not done in a semi-structured response. Two of the most frequently used of this type are the fill-in and the tabular response.

The fill-in response simply asks the respondent to provide a specified piece of information. This may take one of the following common forms.

What Year levels did you teach last year? . . . .

In which suburb do you live?. . . . .

The tabular response is similar to the fill-in. The respondent is requested to provide restricted specified information but, instead of placing the information in an open space he is asked to complete a table.

Year Levels Taught Last Year	Year Levels Preferred	Subject Taught Last Year	Subjects Preferred

The tabular response is a good method for organising a variety of related information which is conveniently located at one place on the form, thereby facilitating the later analysis of information.

In choosing a response format it is essential that bias be guarded against, as biased information gives an inaccurate account of the views or experiences of respondents. One of the major considerations in choosing types of responses is the identification of which formats will admit bias to the item responses. Scaled responses are the greatest source of bias because people often reply in the way they think is most socially acceptable rather than in the way they personally feel about an issue. There is also a tendency to overuse the neutral point in odd-numbered scales.

Finally, in the following table a comparison between the various response formats is shown.

Table 1: *Response Formats – Strengths and Weaknesses*

RESPONSE FORMATS	STRENGTHS	WEAKNESSES
UNSTRUCTURED	Appropriate when little background information available. Highly flexible – permits a variety of responses. Strong explanatory power.	Difficult to analyse. Irrelevant responses may be collected.
SEMI-STRUCTURED Fill-in and Tabular	Flexible response possible but limited. Bias reduced. Tabular form allows grouping of related information.	Suitable only for well defined issues.
STRUCTURED General Multiple Choice	Easy to answer. Easy to analyse. Bias potential moderate, but reduced if residual category used.	Restricted to well defined issues.
Ranked	Uniform response. Easy to analyse. Forces discrimination between choices. Bias reduced.	Difficulty of completion if ranks are poorly assigned.
Scaled	Easy to analyse. Particularly suited to opinion information.	Scales with neutral points have a large bias potential. When used in matrix form may be difficult to answer.
Categorical/ Dichotomous	Easy to answer. Easy to analyse. Small bias potential.	Restricted to well defined or limited issues.

QUESTION WORDING

The issue of question wording is perhaps the most sensitive area in questionnaire design. It is at the level of question wording that many of the problems of the questionnaire are solved, or caused. The evaluator must be aware of a large range of difficulties to avoid and of ways to compensate for these difficulties. One of the most important skills required for this task (and one often ignored by investigators who become used to doing things in a set pattern) is that of being aware of the characteristics of the population involved in the survey, particularly the language and cultural background of the group.

The second major consideration is to ensure that the meaning of the question is clear to the reader. The problems which most often occur in the wording of questions are those which confuse the meaning of the item or which could give the item more than one meaning. The major problems in question wording are: double-barrelled items, double negative items, prestige bias in items, leading questions, emotionally loaded items, embarrassing items, and items which assume prior knowledge.

Double-Barrelled Items

The double-barrelled item asks two questions in one or has two themes in a statement. This makes it impossible to determine which part of the item is being answered by the respondent. For example:

Are inspectors concerned with helping you in the classroom or more interested in passing or failing you in an appraisal?

YES ☐ NO ☐

A second type of double-barrelled question has a hidden component which biases the item. For example:

Have you stopped the physical punishment of children in your classroom?

YES ☐ NO ☐

No matter what answer is given, the item assumes that you physically punished children in your classroom.

Double Negative Items

A double negative results in a positive statement. However, people often get confused with items containing double negatives, usually treating them as negative items. For example, when given the following item respondents may be confused as to how they should answer:

'I don't think it is not a sound idea to continue using this program'.

YES ☐ NO ☐

Does a 'yes' response to this statement mean that the respondent feels that the program should not be continued?

Items with a Prestige Bias

Items are sometimes worded in such a way that one answer appears to be better or more acceptable than another answer. This bias is particularly common when items refer to values, morals, beliefs or philosophical stance. For example:

Would you agree with the vast amount of scientific research which clearly demonstrates that progressive, modern, open-minded teachers cope better with classroom problems than do traditionally oriented teachers?

YES ☐ NO ☐

Prestige bias is built into this item in two ways. Firstly, the item purports to be based upon a 'vast amount of scientific research'. Scientific research is something generally highly approved of within the community, with which people rarely disagree. The item intimates that the 'scientific' evidence is irrefutable. Secondly, the item describes one group of teachers in glowing terms – 'progressive, modern, open-minded' – while describing the other group as 'traditionally oriented'. Most people like to be thought of as being in tune with their times. In this item the 'progressive' teacher is put forward as the

desirable type of teacher, while a certain amount of stigma is associated with being a traditional teacher. Items should be carefully constructed so that respondents gain no clues as to what might be the 'best' or 'desirable' way to answer an item. There are no right or wrong ways to answer questionnaire items, just accurate or inaccurate descriptions of respondents' true perceptions of issues.

Leading Questions

This type of question, by the way in which it is worded, leads the respondent to identify one possible response as the most desired response. This inevitably influences the answers given by respondents and thus does not accurately record their true feelings concerning the item. In answering leading questions respondents may identify a response as the one which the evaluator wants them to agree with. To be co-operative, or for other reasons, the respondents will check this answer to please the evaluator. For example the item:

Do you maintain your obligations as a State employee by reading the Education Office Gazette each month as required by Departmental regulations?

YES ☐ NO ☐

suggests that *everyone* reads the Education Office Gazette, and further, that one would be falling down on the job, and be a bad employee if it was not read. The item clearly points to a particular answer. The group of respondents are therefore, to a degree unknown, influenced by the item, not by their own volition.

Emotionally Loaded Items

Items which use words or phrases which have the potential to disturb or upset respondents emotionally are undesirable, because it is not possible when interpreting such items to know whether responses reflect respondents' true feelings or are due to an aroused state. The following scaled item is one example of such an item.

To what extent do you agree with the following statement?

The State should continue to legalise the inhuman, unnatural and vicious flogging of small children in schools? (Please tick one box only).

Strongly Agree ☐ Agree ☐ Don't Care ☐ Disagree ☐ Strongly Agree ☐

Regardless of one's personal stance on the issue of corporal punishment, the wording of the item could influence a respondent to answer in a way not commensurate with his true feelings on the issue. A simple statement such as:

Should corporal punishment be banned in schools?

would have given a more accurate and unbiased response.

Embarrassing Items

Occasionally it may be important for an evaluator to request information which people would consider to be confidential and very personal. Although this would not often happen in school based evaluation studies, it is important to be aware of using embarrassing terms or using items which may upset respondents.

In designing items, questions and statements should be worded in such a manner that respondents should not become embarrassed, shy, angry or insulted to such a degree that they will not participate in answering the questionnaire or will not answer it accurately. For example, the following item

Have you had a nervous breakdown due to classroom pressures?

YES ☐ NO ☐

could be reworded as:

It is well established that all teachers at various times in their career experience difficulty in managing some classes or tasks. This is frequently due to particular students or classes, heavy teaching loads, and specific pressures at various times of the year, e.g. examination periods. Would you say that during this year that classroom management problems have been particularly prominent in your teaching activities?

YES ☐ NO ☐

The revised item assures the respondent that classroom management problems are common and alleviates the stigma which he may feel is associated with the problem.

Assuming Prior Knowledge in Items

Where some knowledge is required for respondents to answer an item, the evaluator should determine ahead of time whether respondents have the knowledge. If respondents do not have the knowledge required for accurately choosing an answer to a particular item, the answers given will be meaningless. For example, the following item assumes prior knowledge of a topic.

The keyword method of foreign vocabulary learning is superior to the school's current practice.

YES ☐ NO ☐

It is assumed that respondents know what the 'keyword method of foreign vocabulary learning' is. If the respondent is not familiar with this method, he may guess at an answer, or base his answer on his knowledge of the school's current teaching method for foreign vocabulary. In either case the answers given cannot be used because they do not reflect the respondent's informed views of the issue.

In Table 2, a checklist of the most common problems in question wording is provided. Once questions have been designed according to these criteria the remaining problem is one of question order. How should the questions be placed on the survey form in relation to one another?

Table 2: *Checklist of Common Problems in Question Wording*

CHECKLIST OF PROBLEMS IN QUESTION WORDING

1. Can the question be understood?
2. Is the question unambiguous?
3. Could the wording be objectionable to some respondents?
4. Are long or technical words used where simple words would suffice?
5. Is the question expressed as concisely as possible?
6. Is the question designed to yield exactly the information required?
7. Are 'danger words' included – catchwords, stereotypes or words with emotional connotations?
8. Would the question embarrass any respondents?
9. Does the question assume understanding of special knowledge?
10. Are double negatives used in the question?
11. Is jargon or slang used inappropriately?
12. To what extent will a question influence respondents to show themselves in a good light?
13. Will a question influence respondents to anticipate what the investigator wants to know?
14. Does the question need to be more specifically related to the respondents' personal experience?
15. Is the question sufficiently general and free from misleading specificity?
16. Is the question biased or loaded without accompanying balancing questions?
17. Would more or less personalised wording of the question produce better results?
18. Are there phrases within the question which may reflect upon the prestige of the informants, leading them to reply in a prestige-building way?
19. Do structured multiple choice questions allow for all possible responses? Are responses mutually exclusive? Would use of the category 'other' simplify the items?
20. Does the question require a large amount of writing on the part of the respondent?
21. Has the use of a long checklist been avoided? If it is essential that a checklist be extensive, use more than one version with items rearranged in each version. This will help reduce biased answers to the checklist because of respondent fatigue at the end of answering a large number of questions.

QUESTION ORDER

The arrangement of questions on the questionnaire is particularly important. Not only must the questions themselves be sensible, easily understood and answered, but they must be arranged in a logical and meaningful order on the page so as to make the task of completing the questionnaire as meaningful as possible.

The greatest priority in question order is that the respondents see purpose in the questionnaire structure. A random dispersion of questions throughout a questionnaire is not only meaningless to the respondent but very difficult for the investigator to analyse. As stated previously, questions should be grouped together by topic. A plan must then be developed to outline where each group of questions is to be placed on the survey form. Some guidelines in question placement are set out below.

1. Always begin the questionnaire with the most interesting questions. Grab the attention of the respondent and plan to keep it.

2. Don't ask difficult questions first. A few interesting but simple questions will encourage unconfident respondents to continue.
3. The first questions should not concern emotional or value-laden topics.
4. Requests for dull information (numbers, ages, names, etc.) should be made where their purpose is obvious. It is advisable not to fall into the habit of asking such questions at the beginning of the questionnaire unless it is essential that this be done.
5. Arrange questions in a logical order. The progression from one topic to another should be apparent.
6. Questions should proceed, within a single topic, from the general to the specific.
7. Questions should be placed in a meaningful sequence. However, when a question could adversely influence the replies to other questions, the question should be placed so as to minimise such influence.
8. Embarrassing questions should be placed towards the middle or end of the questionnaire. Extremely sensitive issues should not be placed at the very end as they may leave the respondent with an unhappy memory of the questionnaire and perhaps discourage him from participating in further surveys. Likewise, if asked at the beginning, such questions could promote hostility which could bias responses to the remaining questions. Where possible, such questions should be dispersed throughout the questionnaire.
9. Give clear, simple instructions to direct the respondent and to make the question order obvious. To do this ensure that all questions are numbered sequentially. Careful formulating of the pages will complement these ordering procedures.

Appendix B: Example Evaluation Study Using a Questionnaire to Collect Information

Survey of Staff Support for the Introduction of a Community Languages Program as part of the Integrated Social Science Program.

BACKGROUND

Strathpark State High School is a large provincial high school with a staff of 62, which draws students from its immediate city area and from several small towns surrounding the city. Many of its students are first or second generation Australians who speak a language other than English in their homes. The major ethnic groups in the area speak Italian, Greek and Serbo-Croat. There is also a small group which speaks Mandarin Chinese.

Two years ago, Strathpark State Primary School introduced a community languages program encompassing the three major ethnic community languages, Italian, Greek and Serbo-Croat. Recently, parents had suggested, through the Parents and Citizens Association of both the High School and the Primary School, that the High School consider establishing a community languages program to complement that offered in the Primary School. This proposal was supported at a staff meeting by several teachers in the social sciences and by other teachers who were themselves bilingual. The staff meeting agreed to investigate the proposal. Both the Principal and Deputy Principal pointed out possible time-tabling problems but were willing to support the staff decision. As the meeting agenda was large, the history subject master was requested to draw up a tentative overview of the course to be circulated to staff for comment. Following a reasonable time for examination of the proposal, he was also requested to survey staff to ascertain their support for the course. Because all staff could potentially be involved in the course, it was decided that the best technique for surveying staff would be by questionnaire. The following questionnaire was used.

EXAMPLE QUESTIONNAIRE

STRATHPARK STATE HIGH SCHOOL

SURVEY OF STAFF SUPPORT FOR THE INTRODUCTION OF A COMMUNITY LANGUAGES PROGRAM IN YEARS 8–10.

NOTE: Please return this questionnaire either with your roll or place in the box in your staffroom by Friday May 24.
DO NOT PLACE YOUR NAME ON THIS QUESTIONNAIRE.
PLEASE REFER ANY PROBLEMS TO JEFF PORTER, ROOM L12.

NOTES FOR THE READER

General instructions are given: where and when to return the questionnaire, and the name and location of a contact person.

1. Have your read the discussion paper on the proposed community languages course?

   YES ☐ NO ☐

   A copy of the discussion paper is available from the administration.

2. With regard to the proposed community languages course, are you : (Please tick one box only).

   A. Opposed to the introduction of such a course
   B. Indifferent to the introduction of such a course
   C. Support the introduction of such a course.

IF YOU TICKED A or B PLEASE ANSWER ONLY THE NEXT QUESTION. YOU HAVE THEN FINISHED THE QUESTIONNAIRE. THANK YOU FOR YOUR CO-OPERATION.

3. Could you please give your reasons for your answer to question 2?

   . . . .
   . . . .
   . . . .
   . . . .
   . . . .

4. Which languages, other than English, can you speak fluently? You may mark more than one square.

   Greek ☐ Italian ☐ Serbo-Croat ☐
   Mandarine (Chinese) ☐ Other (Please name) ☐

   . . . .

Note the spelling error in question 4 — mandarine. This could be very distressing to some respondents.

Item 4 is an example of a multiple choice response accompanied by a residual category. The residual category was not essential to the question as the questionnaire is only concerned with the four languages named.

5. Have you acquired one or more of these languages within your own family?

   YES ☐ NO ☐

   If Yes, please answer question 6.
   If No, please answer question 7.

6. Which language(s) did you acquire as a family language?

   1. . . . .
   2. . . . .
   3. . . . .

7. Where did you learn to speak your own language(s)?

   PLACE OF LEARNING — LANGUAGE LEARNT

   1. University ☐
   2. Residence in country where language is spoken. ☐
   3. Other (Please name)

   . . . .

NOTES FOR THE READER

8. Which of these languages have you previously taught? You may tick more than one box.

   ☐ None → to Q. 10
   ☐ Greek
   ☐ Italian
   ☐ Serbo-Croat
   ☐ Mandarin
   ☐ Other (Please name)

   . . . .

Note the use of an instruction to direct respondents to the next appropriate question. The item could have been written as a partitioning question instead. The arrow has been used to clarify the instruction.

In this item and item 9 respondents could choose several answers.

9. Where have you taught these languages? You may tick more than one box.

   ☐ High School teaching
   ☐ Community Centres
   ☐ University/College
   ☐ Private Tutoring
   ☐ Other (please name)

   . . . .

It should also be noted that with this subject it is relatively easy to design mutually exclusive responses as there is no overlap between the languages as possible responses.

10. How valuable do you view the teaching of community languages in this school? Tick one box only.

   ☐ Of great value
   ☐ Of some value
   ☐ Of little value
   ☐ Of no value
   ☐ Undecided

Item 10 is a scaled item concerned with respondents' attitudes towards teaching community languages in the school.

11. In relation to your answer to the above question, could you please say why you are of this opinion?

   . . . .
   . . . .
   . . . .
   . . . .

An unstructured response is most appropriate to this question as the range of possible responses is large.

12. If parents and other community members were to be involved in the program, what role would you see them taking?

   1. Teaching a community language without assistance from teachers. ☐
   2. Teaching a community language under the supervision of teachers. ☐

Residual categories are not used in questions 12, 13 and 14 as the evaluators wished to force respondents to choose from a number of realistic options.

3. Teaching a community language in association with teachers. ☐
4. Acting as teacher-aides to teachers who were teaching community languages. ☐
5. I see no role at all for parents being involved in the program. ☐

13. In terms of languages spoken, which students should be involved in the program?

1. All students, whether bilingual or not. ☐
2. All students who wish to be involved. ☐
3. Only students from ethnic groups who wish to be involved. ☐
4. All students from ethnic groups only. ☐

14. At which year levels should the program operate?

1. All year levels. ☐
2. Year 8 only. ☐
3. Years 8 and 9 only. ☐
4. Years 8–10 only. ☐

15. Why do you think the program should apply to these year levels?

. . . .

. . . .

. . . .

. . . .

16. In which of the following ways would you prefer the program to be introduced? The following proposals are still relevant to those who oppose the introduction of the program to Years 11 and 12.

1. A gradual introduction of the program to all year levels over 5 years commencing with next year's Year 8 intake. ☐
2. Introduction of the program at all year levels simultaneously beginning in semester one next year. ☐
3. Introduction of the program into Years 8–10 next year, then to Years 11 and 12 over the following 2 years. ☐

THANK YOU FOR YOUR CO-OPERATION. PLEASE RETURN THIS FORM AS SOON AS POSSIBLE.

Appendix C: Frequently Used Terms for Rating Scales

(Adapted from M. P. Parten, *Surveys, Polls and Samples: Practical Procedures*, New York, Harper Brothers, 1950, pp.190–193).

THREE POINT RATING SCALES

Higher	Same	Lower
Harder	About the Same	Not so hard
Greater	Equal	Less
Yes	Depends	No
Above Average	Average	Below Average
Most	Many	Five
Exceptionally Good	Average	Very Poor
Definitely Agree	Don't Care	Definitely Disagree
Great	Some	Little/None

FIVE POINT RATING SCALES

Strongly Approve	Approve	Deadlocked; undecided	Disapprove.	Strongly disapprove
Certainly right	Probably right	Doubtful	Probably wrong	Certainly wrong
Much greater.	Somewhat greater.	Equal	Somewhat less.	Not at all
Very high.	A little above average	Average	A little below average	Very low
Practically all.	Many	About half	A few	Practically none
Like very much	Like somewhat	Neutral	Dislike somewhat	Dislike very much
Everyone	The majority . .	Quite a few	A few	None

Strongly urge	Approve	Neutral	Slightly disapprove	Strongly disapprove
Favour in all respects	Favour in most respects	Neutral	Favour in a few respects	Do not favour at all
Absolutely true	Probably or partly true	In doubt; divided; open to question	Probably or partly false	Absolutely false

FOUR POINT RATING SCALES

Many	Some	Very few	None
Excellent	Good	Fair	Poor
Highest	Next to the highest	Next to the lowest	Lowest
Much	Some	Very Little	None

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