

Formulating Good Open-Ended Questions in Assessment

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The purpose of the study was to examine the quality of open test questions directed to high school and college students. One thousand five hundred examination questions from various fields of study were examined using criteria based on the writing centers directions and guidelines. The 273 questions that did not fulfill the criteria were analyzed in this study. The commonest mistakes found were: inappropriate usage of action verbs (66%); errors in formulation (13.1%) and the use of titles instead of questions (9.5%). In my opinion, the two most important findings of the study are the high percentage of inappropriate use of action verbs and inadequate number of points given to questions, since these findings were not described previously. The study results suggest that training teachers in question-writing should be incorporated in the curriculum for pre-service and in-service teachers. Various ways of composing more coherent test questions are described after presenting and discussing the mistake types.

Introduction

The technique of asking questions is a central feature of the teaching-learning process. A correctly formulated question may serve several purposes: it can be used to examine student knowledge, enhance thought processes and advance student's learning skills (Seidel, Rimmele and Prenze, 2005; Altan, 2003). According to Ferris (2014), the best way to teach students how to find solutions is to train them how to search for answers. For example, Wong (1985) found that students who knew how to ask questions relating to the organization of a text showed great improvement in comprehension of the text. Yopp (1988) and Dillon (1988) also examined the

connection between asking questions and the level of comprehension. They reached the conclusion that high-level questions asked by the teacher are likely to improve students' comprehension. Question can be of several types, some examples are multiple choice questions (Haladynia 1996, 2013; Crossley, 2011; Fu-Yum, 2013; Hardy, 2014) and open-ended questions. In the current study I investigate only open-ended questions.

Several articles and handbooks have been written on the subject of writing "good questions" (Shepherd, 1973; Erkens and Moelands 1992; Meyburg and Metcalf, 2000; Clay and Root, 2001; Jacobs, 2003; Vogler, 2008). For example Erkens and Moelands (1992) suggested several steps in the construction of a question:

- Always formulate the standard answer first.
- Always check the question against the standard answer. Better yet: formulate first the standard answer and then the question.
- Avoid phrases that may not evoke the desired behavior.
- Split the question into information and questions sections.
- Use specific command and question formulations.
- Discuss (with your colleagues) a number of standard formulations.
- Provide information on how to points should be allocated to each answer.
- Let fellow experts examine the standard questions and answers.

Jacobs (2003) mentioned several types of inadequate questions such as: questions that are ambiguous and unclear, often caused by the use of words such as "discuss" and "explain". His suggestion is to avoid writing essay items that

only require students to demonstrate certain factual knowledge. Clay and Root (2001) emphasized the importance of clear and concise instructions and the usefulness of providing examples of worked problems, which helps the students to understand how to answer the question. They also suggested avoiding separate items or tasks that depend upon answers or skills required in previous questions.

Shepherd (1973) related to the level of the question, to the choice of action verbs and to the role of appropriate instructive words in the formulation of the question.

In this study I evaluated the quality of open-ended test questions composed by teachers in high schools and colleges and attempt to identify the components that should be used in writing "good questions"

The Purpose of the Research Study

The purpose of the study is to examine and give examples of problems that appear in open test questions that are likely to mislead respondents and even to cause them to provide answers that are insufficient, lack detail, or are inaccurate. The study aims to predict problems that might arise in the wording of questions, and to offer ways of avoiding composition of insufficient questions.

Methods

The corpus of the study included 1500 test questions directed to high school and college students from different subject areas that were retrieved during three and a half-year period (January 2010 through June 2013) . The questions were retrieved from 4 high schools and three colleges serving middle and high class population. Questions from the natural sciences, the social sciences and the humanities were examined. Questions from different subject areas and from high school and college were chosen in order to examine whether similar problems exist in college and high school and

in different fields of study. The distribution of the questions between high school and college and the various fields of knowledge is presented below.

	High school	College
Number of questions from:	782	718
Humanities	304	307
Social sciences	291	201
Natural sciences	197	210
Number of inadequate questions	141	132

The questions were analyzed according to criteria from the guidelines that were mentioned above. Only those criteria that appeared in the guidelines more than once were included. An exception was the criterion "questions that were given too many points", included on the basis of an observation made by the author. Although this criterion was sought in various databases in different forms, it could not be found. Two university staff members specializing in language, discourse analysis and education, agreed with the author on the criteria for judging the questions. Each of them examined 300 questions representing the various fields of knowledge; the agreement with the author judgment was 93% and 89%.

Criteria for identifying "bad" questions

1. Ambiguous and unclear.
2. Yes/no question given a high score.
3. Inaccurate use of action verbs.
4. Questions given too many points
5. Leading questions
6. Poorly formulated questions.

Explanation of the criteria:

1. Ambiguous questions are the result of incorrect use of vocabulary or semantically ambiguous lexical items that are inappropriate for a given situation.

For example: The boy spoke with the girl on the roof. (Did they speak on the roof or was she on the roof?).

2. Yes/no question given a high score.

If a question is worth 20-30% it is fairly safe to assume that a short answer such as yes/no or a few words will not suffice and that the student understands that the answer should be longer, but there are no instructions to expand the answer.

3. Inaccurate use of action verbs.

Action verbs play important role in the composition of questions. If the action verbs are not clear and concise the examinee cannot understand accurately what is expected from him/her. An example is action verbs that do not actually explicate what is expected in the answer. For instance, when the question instructs "Find the....", the questioner expects the examinee to identify or locate the answer. However, it is unclear what should be done once it is "found". Should it be written or copied? Should an explanation or an example be provided?

4. Questions given too many points.

The number of points that each question is given in an examination or quiz should relate to the amount or importance of information that the answer will yield. This is an important criterion since it hints at expectations regarding the extent and depth of the response. If a question is worth 20-30 points, it is fairly safe to assume that a short or

incomplete answer will not satisfy the examiner, but if the question does not indicate what is expected of the student in the response, what should the student do? Should s/he give examples? Should s/he explain? If, for example the student chooses to explain but the teacher wanted examples, full credit will not be given for the answer. The wording of the question should make the expectations of the examiner explicit.

5. Leading questions.

The examiner should avoid questions that contain or lead to the answer.

The examinee should provide the answer. Questions from this category are unnecessary and serve no real purpose. For example: "Few elephants are white. Do you think John is right in assuming all elephants in Thailand are white?"

6. Poorly formulated questions.

This criterion enabled establishing whether the source of the misunderstanding arose from a deviation from linguistic norms, for example incorrect grammatical agreement. Mistakes in wording can be confusing, and despite the fact that the student knows the correct answer s/he may misinterpret the question and answer incorrectly.

After screening the questions according to the criteria mentioned above, 273 questions failed to meet the criteria of a good question. No "bad" question was found with respect to the criterion "leading questions", but four types of mistakes were found regarding action verbs.

Questions were sorted into groups depending on the type of problem identified and analyzed again. During analysis it was found that some of the questions could be sorted into sub-groups. In all, seven groups of mistakes were found which are presented and discussed in the results' section.

Results and discussion

In this section I present the types of problems that characterize the questions, try to explain them, and provide several examples¹ for each one.

The most common mistakes found in the questions were the following:

1. Inappropriate usage of action verbs (this type has 4 sub-groups) (66%).
Since I found that the most common mistakes were related to the use of action verbs.
2. Errors in formulation (13.1%).
3. The Use of Statements instead of Questions (this type has 2 sub-groups) (9.5%).
4. A Sequence of Instructions and Action verbs (that the writer is not able to answer all) (4.5%).
5. Use of parentheses in questions (3.7%).
6. Words whose function is to supposedly soften the question that can mislead the writer (3.7%).
7. Lack of direction, guidance and/or instruction in the question (2.2%).

¹ Two other types of questions that are in the literature do not appear in the questions we examined. One is option questions. These are closed questions that contain the possible responses. For instance, 'Are you a teacher or not?', 'Do you work as a teacher, in commerce or installing TVs?'. It would seem that if we were to come across such questions, they would belong to the first group of yes/no questions because presenting a negative proposition as well as a positive proposition creates an option question. There is a semantic connection between the two types of questions (Jespersen, 1992). The other type of question is a tag question, which requires confirmation: 'He'll come tomorrow, won't he?'

1. Inappropriate Use of Action verbs

Inappropriate use of action verbs was the most common error found in the questions examined. This finding is different from the claim that the most common mistake in question formulating is ambiguousness (Jacobs, 2003).

Action verbs are important when asking questions or giving instructions. Every word or instruction should have a clear meaning from which one understands what is expected. The interrogative must be modified to the level of knowledge and the level of thought of the students (Ruddel, 1974). According to the form of the question and the information it is intended to extract, it is customary to sort the questions into a number of groups (Burstein, 1999): 'Wh' questions, hereafter 1.1.1, are open questions which anticipate further information besides yes/no. Yes/No questions, hereafter 1.1.2, are closed questions which anticipate approval or rejection; these are the two main types of questions and they appear in the body of material that was examined.¹

The problems in asking these types of questions are divided into several sub-groups:

1.1 Action verbs which seemingly require a focused answer but a more comprehensive response is expected

In these questions we know that the questioner's aim is to elicit a full or comprehensive response of more than one or two words. That intent is expressed, for instance, in the number of points the question is worth. However, the respondent who gives a short response will not receive the maximum number of points because of the questioner's expectation (example 1.1.1d). Even if the respondent understands that he has to give a fuller answer, it is possible that his response will not be considered satisfactory because it is not what the writer intended. The teacher who compose

the questions should expand it with scaffolding to make the question clearer or more specific.

For example, in the question 'What are the methods of treatment garbage?' (hereafter, example 1.1.1b), the respondent has to name the methods, thereby seeming to answer the question. However, if he understands that he has to give a more comprehensive answer, he will try to pad the answer, perhaps by giving an explanation of each of the methods or citing an example. The problem is that from the question, the writer's intention is not clear and it is difficult to know what will satisfy him should such a question appear in an exam. One way to overcome this problem is for the writer of the question to add the words 'expand your answer' (hereafter, example 1.1.2). However, even the addition of those words does not solve the problem because the examinee is not precisely instructed in which way to expand his answer – by bringing an example or giving an explanation, etc. Therefore the examinee should be given detailed instructions how to answer each question.

Within this sub-group we can identify three different types (1.1.1-1.1.3).

Two other types of questions that are in the literature do not appear in the questions we examined. One is option questions. These are closed questions that contain the possible responses. For instance, 'Are you a teacher or not?', 'Do you work as a teacher, in commerce or installing TVs?'. It would seem that if we were to come across such questions, they would belong to the first group of yes/no questions because presenting a negative proposition as well as a positive proposition creates an option question. There is a semantic connection between the two types of questions (Jespersen, 1992). The other type of question is a tag question, which requires confirmation: 'He'll come tomorrow, won't he?'

1.1.1. Questions of Content: Wh Questions (what, who, where..)

These are open questions that require information besides yes/no (Jespersen, 1992).

Examples:

- a) *Where* would you place her? (20 points, Language)

The answer is very brief: at such and such a place. There is no need to expand or add anything.

- b) Give a *full* answer to the following questions: *What* are the methods of treating garbage; *what* are the advantages and disadvantages? (60 points, Ecology)

The answer to the questions is short – a list of the methods of treatment and their advantages and disadvantages. However, the addition of the word 'full' creates a problem because it does not explicate in which way to expand the answer.

- c) *Who* is the narrator of the story and *what* is his relationship with/attitude towards the father? (20 points, Literature)

In the answer the name of the narrator must be mentioned and the relationship with/attitude towards the father can be dealt with in a few words.

- d) From the end of the 11th century, there was a trend to remove the Jews from European society and countries. *Specify* the stages removing the Jews from European society and countries? (30 points, History)

The student answered the question correctly and listed the stages, but the teacher's comment *was that an explanation was necessary*.

1.1.2 Yes/No Questions

The anticipated answer is yes/no. However, we know that the questioner expects a longer answer by the number of points assigned to the question

Examples: In all of the following examples, between 10 and 30 points were assigned to the question. It is reasonable to assume that yes/no will not suffice.

- a) Look at the pictures: *Are* they connected to the concept of energy? (Science in the Age of Technology)

It is quite apparent that the questioner wants to know what connects or does not connect the pictures to the concept of energy and he may even expect an explanation.

- b) *Does* the poem make use of loaded words?² (Literature)

The answer: it does or it does not. However, the questioner expects the examinee to list the loaded words; the question is whether he only expects an example or whether all the words should be listed. The questioner may expect both.

- c) *Is* the heading "the response of power" appropriate to describe Muhammed Ali's intentions and actions in Egypt? (The answer should be about 4 pages long) (30 points, History)

² 'Loaded words' refers to words that have emotional content.

There is no doubt that the answer must be more than yes/no. The question is which topics will satisfy the questioner.

- d) *Were* the mother, teacher and doctor right in demanding that the disabled girl continue at school in spite of the emotional strain it placed on her? (Reading Comprehension, Language)

In this example the examinee will also debate whether an explanation, an example or a justification will suffice.

1.1.3 Action verbs that are instructions (the answer to them is short although a longer answer is anticipated)

The action verbs are, in fact, not interrogatives, but they present instructions that function in the same way as interrogatives. In the following examples it is obvious that an answer that presents two factors or the listing of three reasons will not be deemed satisfactory and the respondent is aware of this. The problem is what the continuation of the answer will be, what the examinee will add so that the answer will satisfy the questioner.

- a) *Name* two factors that helped and two factors that hindered the building of a new nuclear power stations in Japan during the 1990s. (33 points, History)
- b) *List* three reasons for the immigration of Irishman from Ireland. (33 points, History)

1.2 Equivocal Action verbs³

The dictionary definition of the word 'how' is: in which way, but it often turns out that when the word is used as an interrogative it does not mean in which way/manner but 'what'. The following examples were assigned 10 to 20 points for each answer.

³ We found only one example of Equivocal Action verbs

- a) *How* does the investigator propose to improve the diagnostic method? (Language)

What the questioner is really asking is: What does the investigator propose to do in order to improve the diagnostic method?

- b) *How* can the fact be explained...? (Language)

Does the questioner mean 'in which way' or 'what was said'?

- c) *How* does the sick woman relate to her life? (Literature)

Does the questioner mean 'in which way' does she relate or 'what did she do'?

- d) *How* is the character, Dr. Mazen, presented right at the beginning of the story? (Literature)

The question is whether the questioner meant the way that the character can be a story/a description or what was said about the character.

In order to make this questions more understandable the interrogative 'how' should be used only when its meaning is 'in which way' and not 'what'

1.3 Action verbs that do not actually explicate what is expected in the answer

When these action verbs, for instance, the words 'find the' appear in questions or instructions, have a very clear meaning, but, in fact, they do not require a written or practical response. Because the respondent knows he has to answer the question, he tries to make sense of those action verbs. The problem is that the examinee does not always assign the

same meaning to those words as the questioner did. The questioner expects the examinee to identify or locate the answer; the question is what will he then do – write or copy what he found? Should he add an explanation or give an example?

It could be worthwhile relating to the action verbs as a preliminary to the question or as the basis for a question that will be asked subsequently. We see this in examples "d" and "e" where the word 'examine' comes before the interrogative 'how' and before 'explain'. In this case the questioner must make it clear in the question that this is a preliminary that does not require an answer, but it is preparatory for the examinee, since in many cases the examinees related to "examine" as part of the question and tried to answer it. If the questioner does expect an answer to the instruction 'examine', the examinee may find it extremely difficult to know what to answer (see below). (The following examples were worth 15 to 30 points.)

Examples:

- a) *Find* as many words as possible in the text that belong to the semantic field of transportation. (Reading Comprehension-Language).

After the examinee has found the words, will he copy them?
Will he justify his choices / will he explain?

- b) *Find* three characteristics of top-quality industry in the PCB plant. (Geography)

After the examinee has found the three characteristics, will he copy them? Will he explain why they are characteristics of top-quality industry?

- c) In no more than one or two sentences, *identify* 10 of the following concepts (there is a list of 14 "concepts" including people's names which are not concepts). (History)

Identifying the concepts does not clarify the task; should he explain them? Should he bring examples? Should he show the connection between them and the subject under discussion?

- d) At the beginning of the play there are concealed hints that arouse expectations. *Examine* the hints and expectations in the play you have studied. *How* are they realized and developed during the play? (Literature)

Are there two questions here? The first is 'to examine' and the second, to write 'how'? If so, perhaps the 'examine' actually means list the hints and expectations. Will the answer to 'how' be enough?

- e) The motif plays an important function in the literary work from an aesthetic point of view as well as from the point of view of the design of the idea behind the play. *Examine* several central motifs in the work and *explain* their contribution to the play. (Literature)

Here we understand that there are two questions to answer: examine and explain. The dilemma is whether in the 'examine' question, the questioner will be satisfied with a list of the motifs or will expect an explanation of the motifs and, in the second question, whether it will be necessary to relate to their contribution.

- f) *Specify* the source of the light in the picture, *point out* the diffusion of the light. Also explain the role of the light in the work of art before you. (The History of Art).

It is difficult to distinguish between the two instructions 'specify' and 'point out'.

1.4 Action verbs whose meaning is unclear or uncertain

Since the meaning of action verbs of this type is uncertain, the examinee can interpret them in any way he understands. The use of action verbs of this type is relatively common, and when composing a question the action verbs should be selected carefully.

- a) Both Syria and Lebanon were created as artificial entities, the result of vested interests of the Powers as they consolidated during World War 1. Do you agree with this statement? Fully? Partially? – *give a full analysis*. (50 points, 3 or 4 pages, History)

In the first part of the question, the examinee must answer yes/no, followed by the instruction '*give a full analysis*'. A continuation of the response is expected but the question is in which way, what is the correct response to the word '*analysis*'?

- b) *Describe* the factors leading to the growth and consolidation of nationalistic movements in Europe. (25 points, History)

It would seem that the intention is: *what are* the factors? However, it is also possible that the questioner expects a fuller answer such as an explanation etc. It is out of place in this question to ask to detail the phenomenon.

- c) *Elucidate* the principles of Adler's theory and *elucidate* his theory fully. (Criminology)

Is the intention to explain? Isn't the second part of the question included in its first part?

- d) *Relate* to one of the following passages from the book of Micah: Micah 3, 9-12; Micah 6, 9-16. (40 points, Bible)

What does the instruction '*relate*' include? Is it an explanation? Is it an interpretation? Is it criticism?

- e) *Write* about the destruction of the Second Temple. (30 points, History)

The instruction is unclear and it is a good idea to specify the demands of the word 'write'. The instructions should be clear: explain, give reasons or indicate the stages of the destruction

- f) Write a recursive action that *examines* whether a given system is organized in ascending order. (Computers)

What does the word '*examine*' mean? Does it mean to print a message? Should you return a true/false value? The program has to show the examination, therefore it has to print. It can assess the goal correctly but not print the result and then after the program has run, there will be no information about the important data.

- g) What is *special* about the single digits of the numbers that are circled in blue?

The word '*special*' refers to what is common to the single digits. (Math)

In the following two examples the examinee is asked to *define*, however, there reference in the question to any kind of definition but an answer to the question '*what*'.

- h) Below are two lists. *Define*: what is the trend of each of the two lists. (Reading Comprehension)
- i) The narrator presents us with a dilemma that is the result of a conflict of interests: *Define* the dilemma presented in the story. (Reading Comprehension)

2. Errors in Formulation

Errors in formulation are questions whose formulation deviates from the rules of correct language usage. Examples of this are incorrect grammatical agreement including semantic problems. Contradictions within the question as well as clumsy sentence formulation.

Examples:

- a) Is the heading "The Response of Power" a suitable title for Muhammad Ali's intentions and actions in Egypt? (Answer the *following* question in about 4 pages, History)
The question has already been asked so there is no question to follow.
- b) What other study mentioned by the author is most similar? (similar how?).
- c) What does the fact that popular dictionaries will provide – paragraph 4 – any number of definitions for the word “family” suggest about prevailing attitudes? (complex syntax)

3. The Use of Statements instead of Questions

One of the problems when asking questions is that the questioner makes a statement when the examinee expects a question (section 4.1). Occasionally, the questioner realizes that the statement is not a task and will then add an instruction that is not always precise. (Section 4.2), such as

'explain fully' (it is difficult to understand what a full explanation consists of).

Here are some examples:

3.1 A Statement without an Instruction

The title is neither a question nor an instruction since it does not consist of a task that requires a response, making it difficult for the examinee to answer clearly and directly; he has to decide not only what he will answer but also what the questioner wants to know.

Examples:

a) Herod's building projects. (20 points, History)

Will he list the projects, explain, will he describe it? etc?

b) Arab poetry in the period of Jahilia and the status of the poet in pre-Islamic society. (30 points, History)

It would seem that there are two different subjects: The Jahilia and the status of the poet. What is required of the examinee? Should he mention, explain, exemplify each of them?

c) The Roman Empire's institutions: the republican heritage, positions, Institutions and the assignation of functions, the administration of the Empire, the army, direct rule and tyrannical rule, channels of communication between the center and the periphery. (50 points, History)

While the statement is broken up into sub-headings, the problem is what to write for each one of them: to explain, exemplify etc.

3.2 A Statement Followed by an Instruction that is Imprecise

and Equivocal

One example of this is when the questioner uses a keyword that is imprecise because it is too broad and covers a variety of tasks such as explanation, exemplification, explication etc.

Example:

The fate of the kingdom of Samaria depends on its leaders and moguls and their attitude to the weaker elements of society. *Discuss at length* and *support* it. (30 points, Bible)

The problem here is the imprecision of the instruction '*discuss at length*' and whether it also includes the instruction 'support'.

Another possibility is that the statement is equivocal since the examinee does not know whether he has to answer the statement as well as the instruction following it or only the instruction.

For instance:

"The symbol" in the short story *–exemplify*. (20 points, Literature)

While there is an instruction following the statement, the examinee does not know whether he has only to exemplify or whether he has to write about the symbol in the short story.

4. A Sequence of Instructions and Action verbs

Occasionally there is a sequence of instructions but it is not possible to answer all of them. Whether this is because they repeat themselves in different words (example b) or because there is no answer to the instruction (example a), it is misleading for the examinee who wants to find an answer for every question but may not be able to do so.

Examples:

- a) The songs "you and me" and "sitting on the fence" express different periods in a man's life. *Explain and Detail.* (Literature)

The instruction '*explain*' is clear, but one cannot *Detail* since there is no single unit to break down into parts.

- b) *Elucidate* the principles of Adler's theory and *fully clarify* his theory. (Criminology)

Is the intention to explain? Isn't the second part of the question included in the first part?

5. The Use of Parentheses in Questions

From our examination it would seem that parentheses are used for clarification (example d), repetition (example b), addition (example b, c and d), and for an explicit instruction when one is missing (example e). It would seem that the need for parentheses arises when the question is unclear and does not meet the requirements of the questioner; he then tries to correct the situation by adding a question or an instruction in parentheses. The outcome is that the parentheses confuse the examinee, which wonders what their purpose is; is what is written in the parentheses an additional task or is the task itself?

Examples:

- a) Two nations will come forth from your innards (*the reason for this statement*) (20 points, Bible)

The example is a statement without an instruction, hence the addition in parentheses whose aim is to instruct the examinee how to answer the question, in other words, to write the reason for the statement.

- b) *Explain* one advantage of a referendum that expresses a democratic principle and one disadvantage that expresses a lack of "contractual agreement" (*you must explain the advantage and the disadvantage as well as the connection to democratic principles*). (25 points, Civics)

What is written in the first part between the parentheses *repeats* what it said in the first part of the task: explain the advantage and disadvantage but the latter part is an *addition* to the task.

- c) Why do the Egyptian mummies arouse our curiosity? (*What questions do they arouse?*) (20 points, Reading Comprehension)

The part in parentheses is *an addition* to the question. One wonders why it was necessary to write it in parentheses.

- d) How and by what means does Azaria Alon convince his readers to accept his opinions? (*Which literary and linguistic devices does he use? Give examples to support your answer.*) (25 points, Reading Comprehension)

The first part between the parentheses *explicates* the double question 'how and by what means....' whereas the latter part is an *addition* to the question.

- e) Refer to French revolution? (*Discuss the problems and solutions raised there.*) (20 points, History)

It would seem that the instruction 'refer to' is unclear. It is difficult to decide what the exact requirement is, hence the questioner found it necessary to *explicate and give precise instructions* in parentheses. It is worthwhile noting that the instruction 'discuss' is also not transparent (see section 1.4).

6. Words whose function is supposedly to "soften" the question that can mislead the writer

Occasionally, words such as "in your opinion"⁴ or "assume" appear in a question; they are not interpreted in their basic, conceptual, denotative manner. The words "in your opinion" (example b), which appear frequently in questions, do not really refer to the examinee's opinion, but to the possibilities that arise from the circumstances of the text or from other opinions that are expressed or from the direction in which the text is going; it is not the examinee's personal opinion but a manner of speaking designed to soften the question. A goal of education should be to teach the students to make this distinction. It is not a social occasion which requires a softened address in order to promote cooperation. The examinees know the routine and they are expected to cooperate. The question should be sufficiently short, direct, clear and unequivocal to preclude need to soften it.

Examples:

- a) What is the play on words in the title of the song, "God of mercy" by Yehuda Amichai. *In your opinion*, which word is repeated the most times and why? (Literature)

We can see that 'in your opinion' has no meaning in this sentence because the answer is objective: you have to count the number of times the word is repeated. There is no opinion to express.

⁴ It is worthwhile pointing out that "in your opinion" can appear in its denotative form, when the intention is to find out what the examinee himself thinks about the issue.

- b) What, *in your opinion*, is the worst plague that God sent to the Egypt? (Bible)

In this example we can see that the words "in your opinion" is not perceived in its basic conceptual form; everyone knows, even the youngest pupils, which was the worst plague. It is written so there is no place for an opinion.

- c) *Can you imagine why* the painter Gustave Dora decided to focus on Yoav and not on Absalom? (Art)

Asking the students if they can imagine really means: why did he decide... yet they had nothing to do with it, in other words, the utterance softens the question.

7. Lack of direction, guidance and/or instruction in the question

There are questions which do not have any instruction or guidance and we expect the examinee himself to formulate the instruction. This method also creates confusion about the required task for the examinee. Even if he knows that he has to answer the question he may deliberate about which instruction he should choose: definition, explanation or exemplification.

- a) Concepts a. b. c. d.

There is no instruction telling the examinee what to do with the concepts: to define them, to explain them or to exemplify them.

- b) Here there is no instruction and the question begins with the example: evening/paper – evening paper. The task follows: (on the basis of the example, the examinee must

relate to the following items. salad/mayonnaise.
number/telephone box/post lesson/history.

Summary

It would appear, from the questions that we examined, that there are several types of problems associated with asking questions that make it difficult for examinees to understand the question or instruction as mentioned in the guidelines. The most important finding of my study is that improper use of action verbs is the commonest mistake in composing questions (66% of the mistakes found in the questions examined). I also found four types of mistakes associated with action verbs, a phenomenon that has not been mentioned previously in the literature.

Another new and important finding was the number of points each question is given, since it hints at expectations regarding the extent and depth of the response.

This criterion usually does not stand by itself, and it has strong correlation with the mistakes in action verbs and therefore it is difficult to give exact percentage for this mistake occurrence (see 1.1.1-1.1.3). Another type is problems of question formulation (13.7% of the mistaken questions). Additional types of mistakes that were found in the questions examined, but with lower frequency were: the use of statements instead of questions, the use of parentheses in a question and lack of direction or guidance or instruction.

In my opinion, the questions must be fully comprehensible regardless of the area of study. If the purpose of the question is to test knowledge or application, we must ask question that are clearly understood from every aspect and detail exactly what the examiner expects. Sometimes we should write several clear and easily understandable questions instead of one long and complex question. The action verbs must be clear and not ambiguous and direct the examinee to the right answer. Writing statements instead of questions

should be avoided, and if statements are used they should be accompanied by detailed instructions. Awareness to all the pitfalls mentioned in the previous sections will help question writers in formulating questions more intelligently and enable them to compose better test questions.

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