

The Concept of Multiple-Choice Questions as an Intermodal Activity in Teaching Occupation-Related Foreign Languages

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Abstract: To turn language learners into effective communicators in an occupational domain the four language modes (reception, production, interaction, and mediation) should be brought together. This paper considers the concept of multiple-choice questions as a mediator between receptive and productive or interactive activities, thus minimizing the number of steps and therefore transit time between different language uses, which is especially essential in short course conditions. Regarding the dualistic purpose of MCQs their specific features are revealed, which are also important for their construction procedure. An experimental set of items for an occupation-related text and a draft chain of activities leading learners from reception (reading comprehension) to production (short spoken output) are designed. Further steps to explore multiple-choice questions teaching potential as an intermodal activity are outlined.


1 INTRODUCTION


Reception, production, interaction and mediation distinguished by Common European Framework of Reference for Languages (CEFRL, 2018) as the four modes of communication in real life situations are closely interconnected. This is why in teaching foreign languages they should be brought together to help learners become effective communicators.


In Russian context of teaching foreign languages for occupational purposes, the integration usually represents a long sequence of stages and steps designed to prepare and push learners from one language use to another through doing numerous lexical and grammatical exercises and speech-related tasks, among which are translation, making up a plan, discussing questions, retelling, summarizing, etc. Nevertheless, at non-language faculties where the number of foreign language sessions is hardly enough it is important to minimize the number of steps between language uses without losing the quality of training. It is achievable if use a teaching technique whereby all learning activities would stem from one

‘high-capacity’ task which allows to gradually concentrate and shift learner’s attention to different aspects of language so that they could accumulate ideas, words and structures necessary to convert one language use into the other. One of such techniques, as we see it, is the work with denotations and denotation maps. It makes a core part of the technologies suggested for teaching monologic speaking (Maletina, 2015) and spontaneous monologic utterance in dialogic communication (Serova & Tulieva, 2020), both grounded mainly on careful reading and re-productive writing.

We have assumed that such ‘high-capacity’ mediating role can also be accredited to the format of multiple-choice questions (MCQs). Our research carried out to reveal the MCQs modern scope of use shows that it is confined to two applications. Firstly, MCQs are conventionally exploited as an assessment instrument for monitoring the process of forming the ability and readiness to communicate in job-related situations with a large body of investigations digging up the field. MCQ is the most versatile type of testing format, “adaptable to various levels of learning

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outcomes, from simple recall of knowledge to more complex levels, such as the student's ability to analyse phenomena, apply principles to new situations, comprehend concepts and principles, ..." (Burton et al., 1991, p. 4). It is also easily adaptable to all types of subject-matter including language teaching. Secondly, MCQs when they are generated by students are regarded as an efficient method for learning in different occupational areas. When generating questions students are to identify the essential information in a passage they have read and to write questions about the points they consider important. Such activity helps them enhance understanding of topics under study (Palmer & Devitt, 2006) and "mature from passive into more active learners" (Hutchinson & Wells, 2013, p. 117). However, a MCQ construction procedure requires some skill and experience students are unlikely to possess even in their native language, which makes it difficult for them "to construct knowledge representations which are appropriate, accurate, and well-elaborated" (Song, 2016, p. 64). This may be the reason why this use has not found its application in foreign language teaching, at least no evidence of such use has been found. Along with the generation, the aspects of MCQs peer assessment processes are of academic interest (Kay et al., 2019).

The objective of this research is to initiate the exploration of the MCQs format in its new application – as a teaching technique which, on the one hand, assures the understanding of a foreign language income and, on the other hand, supplies means necessary for producing an outcome, thus mediating reception and production or interaction. This paper considers theoretical and practical issues of MCQs as an intermodal activity, namely 1) determining their specific features and basic principles for construction, 2) designing an experimental set of MCQs for an occupation-related text, 3) designing a possible chain of MCQs-based activities leading to the output desired and piloting it in classroom conditions, 4) outlining further directions of study.

2 SPECIAL FEATURES OF MCQS AS AN INTERMODAL ACTIVITY

Even when targeted only at reading comprehension "different MC questions ... create very particular comprehension and response processes" (Rupp et al., 2006, p. 470). The dualistic function of MCQs under

study cannot but influence their features such as content, linguistics and layout which must be taken into considerations in the design process.

First of all, careful reading and choosing answers for MCQs makes learners concentrate on target ideas of the text. With non-language students in focus, it should be admitted that their background knowledge is usually enough to "be able to understand many of the individual idea units or propositions in a text", but their language level is often much behind making them spend much time "to form an overall representation of the text in their mind" (Green, 2014, p. 100). This is why MCQs should be designed so that to be helpful for students not just to extract individual meanings but form a coherent system of information where individual ideas follow each other logically. It may coincide with the logical structure of the text or may not as long as it adequately conveys its concept. As the outcome product is also expected to have logic, which in fact means a kind of planning, MCQs have to be combined in a set in a way that ensures the logical flow of input information with the prospective output product in mind to facilitate the production process.

The second consideration concerns the MCQs vocabulary. The fabric of an occupation-related text is made of the so-called general scientific vocabulary (abstract nouns and verbs) which is of especial difficulty to learners (Polubichenko, 2019) and requires ample practice to be mastered properly. According to the studies that examined vocabulary acquisition on the basis of reading, text-based lexical enhancement work can increase the efficiency of vocabulary skills (Laufer, 2003; Min, 2008). Although MCQs do not pursue a distinct vocabulary goal, the comprehension task cannot be done without vocabulary knowledge. Hence, the retention of the target vocabulary and its turning from receptive into productive can be regarded as a supplementary goal when designing MCQs to be an intermodal activity. Words included into MCQs become more salient attracting learners' attention and building into their personal vocabularies. In fact, doing MCQs as a comprehension enhancement activity implies the consolidation of the target words and incidental vocabulary acquisition.

And finally, an MCQ structure may play part tuning the learners in for the oncoming output. A basic multiple-choice item consists of a stem and a list of several alternatives containing a single or multiple answers and distractors. If a desired output is interaction, it seems reasonable for the stem to take the form of a question. A question and the answer(s) form a dialogue unity. This feature may be used for

rehearsal activities when two or more learners are involved into the check-up process – asking questions and giving the answer(s) with the possibility to signal if they agree or do not and justify their position. It can also be treated as an opportunity for practicing simple cooperative / communication skills such as disagreeing politely, asking for help, and thanking partners. If a production output is desired, it is rather that a MCQ stem takes the form of an incomplete sentence. Together with correct answer(s) it will make a complete sentence to become a part of the final product.

On a balance, the construction of MCQs designated to mediate reception and production / interaction should evidently start with a well-defined final output product, its content, vocabulary and structural characteristics. The key principles to be followed include: 1) covering basic ideas of the text, which does not mean all ideas, but only those which are to be included into the final output, 2) constructing as many items as there planned to be sentences in the expected output, 3) arranging items in an order that makes up a plan of the output, 4) choosing the grammatical structure of a MCQ stem depending on the type of the final output in view – production or interaction, 5) covering the target vocabulary but in a way that does not contradict the general guidelines of writing MCQs designed solely for comprehension assessment purposes to exclude the possibility of choosing the correct option(s) out of recognizing the key words rather than understanding ideas.

3 CONSTRUCTING MCQS AS AN INTERMODAL ACTIVITY

This section exemplifies the application of the foregoing principles when constructing MCQs as an intermodal activity between a written input material and a short spoken production output as a final product.

3.1 The Characteristic of the Input Material

The input material is a text for reading within the topic *Passenger Service*, part of a greater module *Passenger Transportation* taught to 3rd year part-time railway students (Makar, 2021). It contains factual (terminology, specific details and elements) and conceptual (classifications and categories, principles and generalizations, and theories, models, and

structures) knowledge, which is typical for occupation-related texts in general (Andersen & Krathwohl, 2001).

The text consists of four paragraphs, which is considered to be a justified length corresponding to different language levels. However, short texts like this are claimed to be difficult due to the limited amount of information they contain (Arshad et al., 2020). Readability formulas also interpret the text as difficult to read. Thus, the Flesch reading-ease test taking into account the number of sentences, words and syllables scores it 35, and the New Dale-Chall Formula, which uses its own graded word list to determine potentially difficult words, scores it 8.5. Quantitative characteristics (712 syllables, 403 words, 16 sentences) testify that the difficulty arises from the long complex sentences (average sentence length is 25 words). Although most of the words are single (55 %) and double (28 %) syllabled, qualitatively the text vocabulary presents difficulty comprising many general scientific words problematic for students to memorise, retain and use due to their functional and semantics features. No title or illustrations that could aid in comprehension accompany the text.

3.2 The Considerations on MCQs Construction

The type of the target output is a short spoken report about a passenger service or product. To determine the content and number of MCQs and their order in the set it was necessary to determine quantitative and qualitative characteristics of the final product: the main ideas to cover, the number of sentences and their logical sequence. Based on the content of the text, it was decided that six sentences and, hence, six multiple choice items are enough to convey its meaning. To determine their order an illustrative outcome was produced whose logic did not completely coincide with the order of information chunks in the text. The information demanded in items five and six in the text follows in reverse order.

The planned output being a short report, grammatically each MCQ represents a combination of a stem in the form of an incomplete sentence and a list of four alternatives mostly in the form of short word combinations so that a stem connected with a correct option or options produces a complete sentence. Out of six MCQs two are single correct option, four – multiple (two or three) to cover the text content and diversify the difficulty of items.

Lexically, it was decided to avoid verbatim phrasing and simplify the vocabulary, which are the

basic vocabulary requirements to MCQs construction. For the purpose we employed appropriate lexical strategies, mainly paraphrasing, with the use of previously learnt and more frequent vocabulary. Of eight general scientific words and eight topical word combinations the unit focuses on, five target words and word combinations were included in paraphrased MCQ chunks in the form they were introduced (compete, destination, improve (2), marketing campaign, customer survey) both in correct and incorrect options not to be regarded by students as signals for answers, the word quality was presented as a definition, schedule, competitors, promotion, departure point are the forms.

3.3 MCQs-Based Activities

In this section the sequence of activities deploying around MCQs constructed and observations made in classroom conditions are presented. The learners were instructed that the MCQs were the basis for a scope of follow-up activities so that they could keep proper attention to the items.

Activity 1: careful reading of the text and deciding on the correct answers to choose from the alternatives provided. The task was done individually to allow learners activate their personal background knowledge on the topic and language skills to interpret the textual information. As with any learning activity, there was allotted definite time to finish the activity. However, as the MCQs were designated for learning (not for assessment), there was no strict time limit and it was reasonably prolonged for the learners to prepare well enough. It should be noted that the time was partly spent on the revision of MCQs vocabulary, since the learners understood that they would need it in further activities. Thus, the task evidently encouraged them to make more efforts to retain those words as the important ones.

Activity 2: justifying individual choices as a class to check comprehension. As learners were primarily focused on comprehension, this activity provided opportunities for making corrections and fixing the correct answers. Additionally, it did not allow the weaker learners to skip over thought-conveying target words, made learners hear and pronounce them several times, thus consolidating their correct spelling, pronunciation and meanings, which hopefully may facilitate the retention of the context and contextually meaningful words. There is an option of going through the MCQs discussion twice if the time allows and there is a learning necessity: first in small groups, then as a class.

Activity 3: generating an intermediate shortened summary-type text out of the stems and correct responses by eliminating the distractors. The new text presented a coherent representation of the original text concept in full sentences, which is typical for reports, but lexically and grammatically it was simpler as is attribute to spoken patterns, and its structural organization differed. In fact, this was a reproductive activity aimed at taking in the ideas from the text read and tying them with the thought-conveying words. The summary was peer-assessed, which did not take much time but contributed to the consolidation of the vocabulary in a more demanding situation. The intermediate text product could be treated as a model to be used at the last – production – stage. As it was a classroom work, the text was hand-written. However, if done with the use of electronic devices one can just delete the distractors to have the product, which may be especially convenient. To strengthen the effect from this activity it is possible to visualize statements in the form of pictures or a mini-presentation, the positive effect of visualization on learning being widely recognized.

Activity 4: making up a final spoken report on the topic in the form of a short talk on a service or product suggested by railways to stay competitive on the passenger market. Unlike the reading comprehension stage, the final report was of individual accountability. Preparing each learner had to make several decisions, namely, which information chunks from the text read to use in a new one, which service or product to describe, what to tell about it and how. In fact, reports presented model texts modified by the learners to the degree corresponding to their language level. The weakest learners just changed a few words, the strongest ones followed the logic suggested by the model text but made their talks longer and more detailed. The reports were presented orally to the group and assessed by the teacher.

In fact, we can interpret all activities above as a MCQs-based multi-skill activity going through several stages – reception (in the example it is reading), reproduction (in writing and oral) and production (presenting short topic-related reports) – to activate background and language knowledge and skills and acquire new ones to produce a target type of product.

3.4 Discussion

The MCQs-based multi-skill activity is evidently constructed in the way that makes the learning easier. Consecutive processing of the input material takes learners from understanding a longer detailed text to

producing a topic-related shorter one. Meanwhile, the psychological evidence shows that it is more difficult learning process that increases the learners' engagement and facilitates the long-term retention and transfer of skills or knowledge (see e.g., Healy & Sinclair, 1996). It challenges the learning process based on the MCQ technique, and makes us bring up several questions and seek answers for them.

And the first question is whether the negative effect on long term retention and transfer from the use of MCQs does arise, and if it does, how it can be neutralised. It seems feasible to avoid unfavourable consequences with the help of cooperative, or collaborative, learning which involves every learner and maximises the benefits of cooperation among mixed-ability and mixed-proficiency group members (Jacobs & Renandya, 2018). In a use described some of the cooperative learning principles were easily applied, for instance, peer interaction and equal opportunity to participate (activities two and three) as well as individual accountability (activity four). Numerous cooperative learning techniques and their variations in existence, it is up to the teacher to select most suitable ones for a specific classroom situation.

The second question concerns optimal conditions for the application of MCQs as an intermodal activity. As this technique lends a helping hand, it is presumed that these are low-level language learners who find it difficult to reach thorough understanding of linguistically complex occupation-related material that may particularly benefit from it. The pilot use backed this logical assumption up. However, on this stage it is not clear if MCQs in their new role may suit a variety of learning situations, for example, autonomous training beyond the classroom and e-learning, shaping the skills and leading to the result desired.

As foreign language study groups at non-language universities tend to be formed with no consideration for students' language level, teachers face classes comprising students of nearly a full range of levels from false beginners to intermediate and higher. Such classroom situation is a real challenge for a teacher who has to seek for methods to engage and lead every learner to success. With MCQs as an intermodal activity, good opportunities for differentiated learning are strongly felt. For example, lower-level learners can be given a set of MCQs ordered logically to simplify the comprehension procedure while higher-level ones can be supplied with a set of randomly organized items to be answered and then ordered logically for further re-production task. Another possible way to differentiate is to make the final task more difficult and complex for more

proficient learners. It is worth then exploring the MCQs potential for differentiated learning as another promising aspect.

Finally, the last but not the least issue that has to be studied more thoroughly deals with vocabulary. Does a MCQs-based multi-skill activity create conditions for vocabulary to transit from reception to production? The possibility of using the target words on all stages of the described MCQs-based activity provided multiple retrievals, which is stated to be one of the key factors to transfer vocabulary from short to long term memory so that the learners recall the words easily (Wesche & Paribakht, 2000). But whether it is enough for long-term retention is a task for further experimental evidence with the use of methods proved reliable in vocabulary investigations.

4 CONCLUSIONS

The use of MCQs makes it possible to expand the list of 'high-capacity' teaching techniques which can bridge receptive and productive / interactive language uses minimizing the transit time between them, which is an essential benefit in short course conditions typical for occupational domain. The outcomes of the pilot uses look promising and encourage to further explore the potential of this technique in a number of areas, among which are, primarily, optimal application conditions from the standpoint of learning benefits for different categories of language learners and the extent of its possible use in and beyond the classroom, including e-learning, as well as the issue of incidental vocabulary acquisition.

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