

## **Abstract**

Many studies suggest that learners who try to recall information they have learned are more likely to remember it later on, even when compared to further learning of the material. Therefore, such retrieval tasks (referred to as “practice tests”) are an effective means of learning. Yet not much is known about the way in which the various characteristics of practice tests influence their effectiveness, and especially not for children. The current study addressed the question of whether the benefit of learning from practice tests is influenced by how they are answered: overt response (voice / written) versus covert response (thinking about the answer without producing it), focusing on elementary school, young and old learners. In the study, three hypotheses were examined. The first one was that the manner of the answer would influence the learning from a practice test among children so the grade in the criterion test following a training test would be higher when the answer is overt than when the answer is hidden. The second hypothesis was that the performance in the practice test and the criterion test would be better among the older children than among the younger ones. The third hypothesis was that the manner of answering would depend on age, so that the influence of the manner of answering would affect learning from practice test would be greater among the younger children than among the older ones. The study involved 149 students from the Arab sector: 76 of them were 2<sup>nd</sup> graders, and 73 were 5<sup>th</sup> graders. They took part in two sessions individually. The first session included a preliminary test that assessed working memory capacity and the learning phase of the main task, in which the learners were exposed to flags of different countries and asked to try to remember which country each flag belongs to. Later, a practice phase was held in which participants were re-exposed to half of the flags (re-learning) and took a practice test on the other half. In the second session a day later, a multiple-choice criterion test was held on the studied flags. The results revealed that a overt response on the practice test led to better performance on the criterion test than a covert response. In addition,

it was found that performance on the practice and criterions test was better among the older learners than younger ones. It was also found that the effect of the response format (covert / overt) on learning following a practice test among children was not affected by age or working memory abilities. It can be concluded that the format of response on a practice test has an effect on its benefit to learning, with an overt response leading to better results than a covert response. These findings have significant implications for the educational field regarding how educational activities that require retrieval of studied information from memory should be designed in order to strengthen their benefits to learning.