



## How to learn effectively for Revalida: learn actively and repeat at intervals

How to learn effectively for Revalida: learn actively and repeat in intervals

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### SUMMARY

**Introduction:** Revalida is a test made up of two stages (theoretical and practical) that allows doctors trained abroad, both Brazilian and foreign, to practice medicine in Brazil, as long as they are in good standing with the country. There are many methods used and studied to better capture any new information that has been learned. **Goal:** Review the literature that identifies which learning methods are most effective when preparing for Revalida. **Method:** The study was based on a systematic review of the literature on the topic. **Results and discussion:** Among the ten methods reviewed in the research, only two were recommended and classified as highly useful based on the review of the

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literature: practical testing and spaced practice. **Conclusion:** Based on the results, it is recommended that the candidate for Revalida prepare a study schedule with periodic and spaced tests, using as a learning tool, among other materials, questions from previous competition exams. **KEY**

**WORDS:** Medical education; Literature review; Exam performance



## ABSTRACT

**Introduction:** Revalida is a two-step test (theoretical and practical) that allows doctors trained abroad, both Brazilian and foreign, to practice medicine in Brazil, provided they are in good standing with the country. There are many methods used and studied to better capture any new information that has been learned. **Objective:** To review the literature that identifies the most effective learning methods when preparing for Revalida. **Method:** The study was based on a systematic review of the literature on the subject. **Results and Discussion:** Among the ten methods reviewed in the survey, only two were recommended and classified as highly useful based on the literature review: practical testing and spaced practice. **Conclusion:** Based on the results, it is recommended that the candidate for Revalida draw up a study schedule with periodic and spaced tests, using as a learning tool, among other materials, questions from previous exams of the contest. **KEYWORDS:** *Medical education; Review of literature; Performance in exams.*

## REVALIDATE

Revalida is a test composed of 2 stages (theoretical and practical) that allows doctors trained abroad, both Brazilian and foreign, to practice medicine in Brazil, as long as they are in regular status with the country. 1. The first phase of the exam consists of 100 objective questions and five discursive questions about the major areas of medicine (clinical medicine, gynecology and obstetrics, pediatrics, surgery, family and community medicine) and public health. The second phase (practical) consists of taking 10 anamnesis in clinical situations, with actor simulation<sup>two</sup>.

The exam was created in 2011 and, later, in 2019, it gained its legal basis in law 13,959, which provides for the rules of the exam<sup>3</sup>. Since then, the Test received more than twenty-two thousand applications until 2017, with a historical average pass rate of around 18%. However, in 2017, the final approval rate was less than 5%. In 2021, the exam received more than 11,800 registrations, with around 50% of this number being approved<sup>4</sup>. It is known, then, that Revalida is a difficult, tiring test, which privileges some content over others, especially with regard to public health issues.

Therefore, this article aims to suggest learning methods with scientific evidence that may be useful for learning content for the Revalida tests, as well as highlighting the importance of an organized, objective and effective study. In order to know when and how to find the information necessary for the study, it is necessary to develop skills in locating, evaluating and effectively using the information found, that is, it is necessary to have information competence to recognize the best study techniques<sup>5</sup>.

## STUDY TECHNIQUES

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There are many methods used and studied to better capture new information that has been learned. Some studies, in this sense, tried to identify which learning methods are the most effective. A systematic review showed that, among the ten methods reviewed in the research, only two were recommended and classified as highly useful: practical testing and spaced practice<sup>6</sup>.

The first method concerns the act of testing yourself in a practical way, with challenges and questions created by yourself or others. In a study conducted with university students, they were divided into two



groups, and both received the same information, however, one of them was tested and the other just reread the content. It was seen, then, that the group submitted to the practical test freely remembered more information compared to the second group (56% vs 43%)<sup>7</sup>.

The other highly recommended method is also related to practice tests, but adds a time gap between tests. A meta-analysis conducted in 2006 evaluated more than 14,000 participants in 254 studies and found that spaced practice resulted in better learning results, with 47% performance in free recall versus 37% in the group that only studied the content.<sup>8</sup> Both forms have limitations, but they show great promise and are widely studied.

Contrary to popular belief, some practices frequently used in learning are contraindicated because they have low utility, as seen in scientific studies. Among them, the practice of summarizing, that is, creating ways of synthesizing the material for later reading, did not result in better outcomes in relation to information retention. However, this method depends greatly on the quality of the material produced and this practice cannot be generalized, since there is no standardization and the literature focuses more on how to train the student to summarize than on the impact of the summary itself.<sup>9</sup>

Another widely used practice that also did not prove to be effective was marking the most important content, important, such as underlining or highlighting the text, as it does not result in more learning in the medium and long term, being useful only when the student already has good prior knowledge about the subject and knows the most important information that should be marked<sup>10</sup>. In addition to the practices mentioned, another commonly used practice, simply re-studying learned content, also did not have a positive result, as it did not produce better retention of information in free recall tests.<sup>11</sup>

Therefore, among the most promising practices for learning retention, on which the scientific literature has extensive publications, the act of testing oneself, especially on different occasions, has been shown to have a positive influence on learning, as it is a method simple, fast and generalizable to different populations. It is, therefore, more effective than simply massively studying some content.<sup>12</sup>

## ACTIVE REMEMBERING

It has already been seen that the literature widely supports the act of testing oneself after learning some new information and that results even improve if these repetitions are done in a spaced and repetitive manner. Next, two strategies are presented for retaining information that can be applied when studying for the Revalida exam, both in its theoretical and practical stages.

Active learning methods engage the mind and do not necessarily need to be instantly successful. They are superior to simply restudying the content or summarizing the information, as they produce cause and effect relationships not produced in passive study<sup>13,14</sup>.

Even with frustrated attempts at recall, considering that they were accompanied by feedback, they were associated with better learning over time, as this mechanism is responsible for retaining information, as it puts the learned content to the test<sup>15</sup>. Even being tested on content that has never been seen before improves learning of that same content, demonstrating the power of recall and practice as a learning method.

Although it may seem discouraging to a student to be subjected to repetitive tests, its effect is known. Even if you get answers to elaborate questions wrong or are unable, on the first occasion, to remember most of the facts, throughout repeated practices on the same topic, the level of retention and

student learning surpasses passive learning methods, as it stimulates subsequent and permanent learning<sup>16</sup>.

Therefore, based on selected scientific evidence, it is highly recommended to exercise active recall, which is convenient both when the student wants to actively recall for themselves the content that was studied (such as listing facts, repeating information, making lists) and when carrying out questionnaires, tests and practical exercises to retain learning.

## SPACED REPETITION

Spaced repetition is a technique for efficient memorization that uses repeated review of content following a schedule determined by a spaced repetition algorithm to improve long-term retention<sup>17</sup>.

Our ability to remember information depends critically on the number of times we review it, the temporal distribution of revisions, and the time elapsed since the last review, as demonstrated for the first time by a seminal study by Ebbinghaus.<sup>18</sup> The use of flashcards has been widely used for this purpose. These are small pieces of information that a student reviews repeatedly following a schedule determined by a spaced repetition algorithm, the aim of which is to ensure that students spend less time working to recall momentarily forgotten information<sup>19</sup>.

A study developed 4 active recall spaced repetition methods, two of them with pre-defined and constant intervals of time, such as every 10 days, one of them with no interval between the day of learning and the day of the test and the other with 7 days apart. The other 2 groups had increasing intervals from the first day to the test, 1 of them with no interval between the learning day and the other with a 1-day interval. There was still a fifth group, which served as a control, which only passively studied the contents<sup>20</sup>.

At the end of the twenty-ninth day, all five groups were subjected to the test. Although the groups with repetitions at increasing intervals stood out in relation to the groups with fixed intervals, the difference was notable in that the simple fact of undergoing tests on the content learned increased the performance of the 4 groups in relation to the control.<sup>21</sup> Therefore, spaced practices improve long-term retention of correct information and prevent the fixation of incorrect information.

## FINAL CONSIDERATIONS

This work addresses effective and scientifically based methods to improve learning and, consequently, performance in official tests, in addition to retaining this knowledge for life.

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The faculty of medicine, sometimes, is not so favorable to the development of the practices studied here due to the enormous amount of content to be learned for a single exam, compartmentalizing knowledge into infinite disciplines that, often, do not talk to each other. .

Furthermore, doctors trained abroad who want to practice in Brazil are subjected to an exhaustive test, Revalida, which historically has low approval rates.

Therefore, we strongly recommend that, based on the practices studied here, the candidate for Revalida should prepare a study schedule with periodic and spaced tests, using as a tool



learning, mainly questions from previous exams from the same competition. As pointed out throughout the text, this type of learning greatly surpasses the study and passive re-reading of the content.

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