

Radboud scientists win Memprize competition with best vocabulary learning method

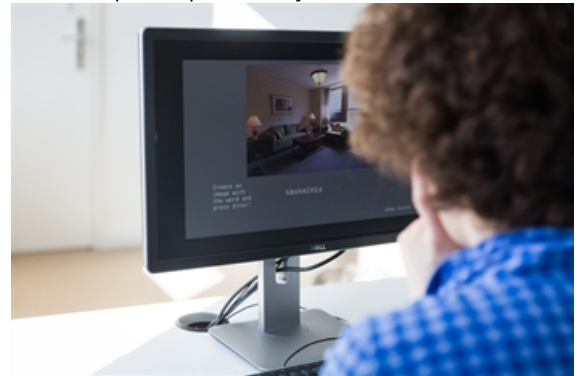
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Language learning app Memrise has announced the winner of its first Memprize: a competition to find the world's most efficient vocabulary learning technique. The team from Radboud University and Radboudumc was crowned victorious following more than a year of in-depth real-life empirical experiments, involving more than 10,000 participants.

The task of the international competition was simple: find a way in which participants can learn the meaning of 80 words as effectively as possible, within one hour. The winning learning method, developed by a research team from Radboud University and the Radboudumc, was based on a clever combination of techniques and strategies based on research into memory and learning. Data were collected at the Donders Institute for Brain and Cognition and the Behavioural Science Institute of Radboud University, but some team members currently work at different research institutes around the world, as can be read in their bio's below.

Most effective and most enjoyable method

Overall, the winning method more than doubled memory performance compared to the standard technique of repeated study. The method combined adaptive retrieval practice, where the hardest words to remember were presented more often, and an introduction to mental imagery. A unique feature of the program: volunteers were asked to imagine the words in certain rooms so that they could later practice recalling the words by room. Besides being the most effective, participants also found the winning method to be the most enjoyable of all submissions. All data and findings from the project will shortly be made publicly available on www.memprize.com (<http://www.memprize.com>) and will be described in a joint scientific article of all researchers involved in the competition.



Enabling smarter study choices

The Memprize consists of 10,000 USD, which will be shared by the team. "We're delighted to have won the first Memprize", says Gesa van den Broek, PhD candidate at Radboud University's Behavioural Science Institute and Memprize project lead. "This was a fascinating project for our team, which allowed us to combine our different research backgrounds. Our hope is that these results will raise awareness around key findings from the learning sciences. Learners who understand basic workings of memory, for example, can make smarter study choices. Therefore, it will be great to see the ideas collected in this project inspire the development of effective learning apps, a process that the team would be interested in being involved in."



The whole Radboud Memprize team: Paul Konstantin Gerke, Nils Müller, Anke Marit Albers, Boris Konrad, Gesa van den Broek, Ruud Berkers and Marlieke van Kesteren – see bio's below.

Memprize is the first ever competition to objectively compare the effectiveness of independently-conceived learning methodologies. Participants included teams from MIT, the University of Oxford, and Washington University in St. Louis. The Memprize finalists were judged by a panel of distinguished cognitive scientists including: Prof. Robert Bjork, Distinguished Professor of Psychology at UCLA and Dr. Yana Weinstein, Assistant Professor of Psychology at UMass Lowell.

The team

- **Gesa van den Broek** – Gesa is a PhD candidate at Radboud University's Behavioural Science Institute and is the unofficial Memrise project leader. She specialises in memory retrieval effects and vocabulary exercises in foreign language education. Her research includes studying the effect of practice tests and how computer models can be used to efficiently time repetitions. [Profile page](http://www.ru.nl/personen/broek-g-van-den/) (<http://www.ru.nl/personen/broek-g-van-den/>)
- **Marlieke van Kesteren** – Marlieke was the one who came up with the idea to participate in the competition and formed the team. She conducts research into the effect of prior knowledge on the retention of new information, first at the Donders Institute, then with a Rubicon grant at Stanford University (USA) and now with a Marie Curie fellowship at VU Amsterdam. [Personal website](https://sites.google.com/site/marliekevkl/) (<https://sites.google.com/site/marliekevkl/>)
- **Anke Marit Albers** – Anke Marit did her PhD research at the Donders Institute, where she investigated visualisations in the brain and the role of the working memory in this. Currently, she works at Justus Liebig University in Giessen, Germany. [ResearchGate page](https://www.researchgate.net/profile/Anke_Marit_Albers) (https://www.researchgate.net/profile/Anke_Marit_Albers)
- **Ruud Berkers** – as part of his PhD research at the Donders Institute, Ruud investigated the influence of schemas (prior knowledge), sleep and emotions on the storage of new information in the long-term memory. Ruud now works at the Max Planck Institute for human cognitive and brain sciences in Leipzig. [Profile page](http://www.cbs.mpg.de/employees/50464/474664) (<http://www.cbs.mpg.de/employees/50464/474664>)

- **Boris Konrad** – Boris not only conducts research into memory as a postdoctoral researcher at the Donders Institute, but is also an expert when it comes to “supercharging” memory, based on his vast experience. This is because he is a memory athlete who takes part in international competitions where you have to remember as much information as possible. [Profile page](http://www.ru.nl/english/people/konrad-b/)
- **Nils Müller** - Nils is a PhD candidate at the Donders Institute who studies differences in the use of prior knowledge between children and adults when acquiring new knowledge. [Profile page](http://www.ru.nl/english/people/muller-n/)
- **Paul Konstantin Gerke** - Paul has a background in artificial intelligence and software engineering. He helped the team develop the practice programme, in particular the intelligent distribution of repetitions over time. Paul works at Radboud University medical center. [Profile page](http://www.diagrijmegen.nl/index.php/Person?name=Paul_Konstantin_Gerke)

Also read:

- 2016 news item on the Radboud participation in Memrise: [International competition for best study method](http://www.ru.nl/english/news-agenda/news/vm/donders/cognitive-neuroscience/2016/memrise-competition)

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