

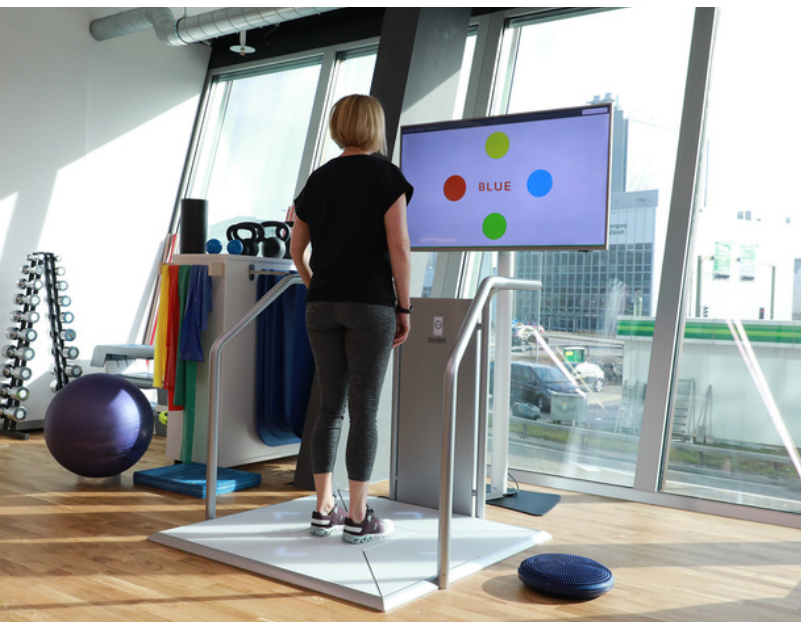
Dividat.

ASSESSMENTS

Assessments provide baseline values which enables a prescriptive platform to build the correct activities and therapies related to the improvement of the physical-cognitive interplay™ for each individual.



Assessments (often called "tests") are an essential part of any training and therapy measure. Our daily life is based on cognitive-motor interaction and thus cognitive-motor assessments have a higher ecological validity.



At the beginning of a training period, a basic measurement of various functions should take place, which determines the current state of a trainee. Based on the results of these initial assessments, training/therapy can be tailored specifically to the exerciser/patient. Each assessment focuses on a specific physical or cognitive function (e.g. dynamic balance or selective attention).

Assessments are standardized procedures that objectively measure performance.

DIGITAL ASSESSMENT ADVANTAGES

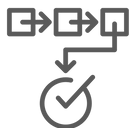
Today, most assessments, especially of cognitive functions, take place using paper and pencil (paper-pencil). The advantages of digital assessments are:



The procedure can be standardized to a large extent and errors in the execution can be minimized.

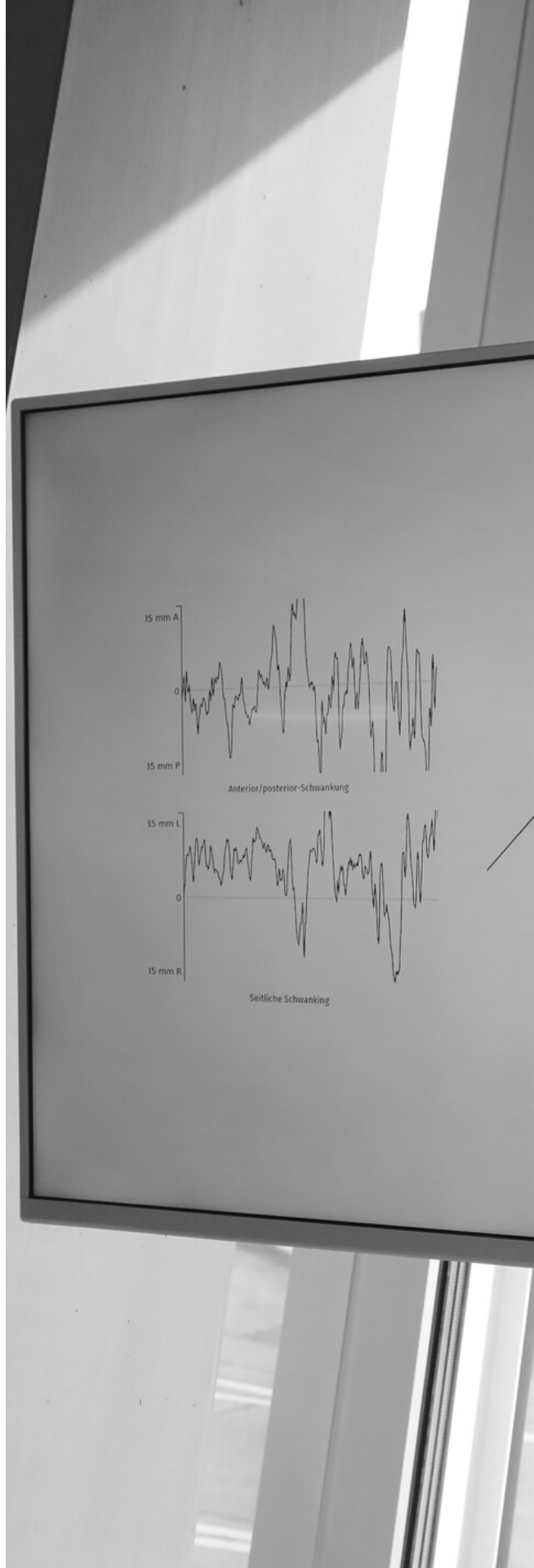


The measurement results are automatically documented and stored.



Reliability, repeatability and efficacy are improved and frequently the utilization of digital assessments serve as a direct pathway to develop positive intrinsic behaviors.

*It is important to recognize that digital assessments should be designed to be very user-friendly and enable safe and easy use.




ASSESSMENTS

The Dividat Senso provides various physical and cognitive tests which are integrated in a digital case management system (Dividat Manager). This set of performance metrics gives a comprehensive view of a persons physical and cognitive performance as well as outcome management.





PHYSICAL

Physical functions are central to intact, unrestricted mobility in everyday life.

Name	Description
 Sway Test	Measures static balance and postural control

COGNITIVE

Cognitive functions are not only central to intact mental performance but are also related to unrestricted mobility.

Name	Description
 Go-NoGo Test	Measures selective attention and conscious control of reactions
 Reaction Time Test	Measures average reaction speed in six stepping directions
 Switching Test	Measures cognitive flexibility and ability of switching
 Stroop Test	Measures inhibition, the ability to inhibit irrelevant information, and cognitive flexibility, the ability of switching.

FORM-BASED

Name	Description
DEMMI	De Morton Mobility Index
SPPB	Short Physical Performance Batter

ADMINISTERING ASSESSMENTS

Dividat Manager is a secure cloud-based case/outcome management portal where Assessments can be accessed through. Once you have logged into Dividat Manager and selected the Assessments tab simply choose the test you would like to perform and you will be guided step-by-step.



1. Connect

Assessments are done in interplay between Manager and Senso, with Manager as secure initiator and controller. The screen at the Senso presents tasks for the participant. Manager is used to guide the process.



2. Warm up

An initial warm up phase helps to make sure the assessment is understood. The results of this phase will not be recorded. The warm up can optionally be skipped, or repeated.



3. Assess

The task is the same as in the warm up phase, but the participant no longer receives direct feedback. The results of this phase will be recorded.



4. Results

Once the assessment is completed, a results screen is shown. This screen provides a breakdown of the performance on various assessment metrics. The results can optionally be shown on the Senso's screen. The results are saved and can be retrieved again at any time in Manager.



MEET OUR RESEARCH TEAM

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Eva is the founder of Dividat. She holds a PHD in Human Movement Sciences of ETH Zurich with a focus on fall prevention and has helped numerous companies implement cognitive-motor training concepts.

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Manuela is the head of research and development at Dividat. Manuela is a neuropsychologist with many years of clinical experience at the University Hospital of Zurich. She has finished her PHD in Movement Sciences at the ETH Zurich.

Dividat utilizes a standardized evidence-based methodology for all research and product development.

Research at ETH Zurich formed the basis for the development of the Dividat Senso. The innovative training and testing device has been the subject of numerous scientific studies and has attracted a great deal of attention both in research and in everyday clinical practice.

Dividat is continuously involved in research projects that investigate the applicability and benefits of our products and their further developments. We work with partners from various disciplines in national and international projects. The knowledge gained is incorporated into the further development of our products. Our products are based on scientific evidence.

OUR RESEARCH PARTNERS



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USZ Universitäts
Spital Zürich



Balgrist

Université
de Montréal

VAMED
health. care. vitality.

ETH zürich

Dividat.

ASSESSMENTS VS. TRAINING DATA

Progress is made during training, which is evident in training performance. Nevertheless, training data should not be used for objective performance assessment. The Dividat training games automatically adapt to the performance level of the trainee/patient and thus there is no standardization. The goal of training is not only an improvement in the trained tasks but mainly a transfer effect of the functional improvement to untrained tasks, which is what the assessments represent.



REFERENCE NORMS

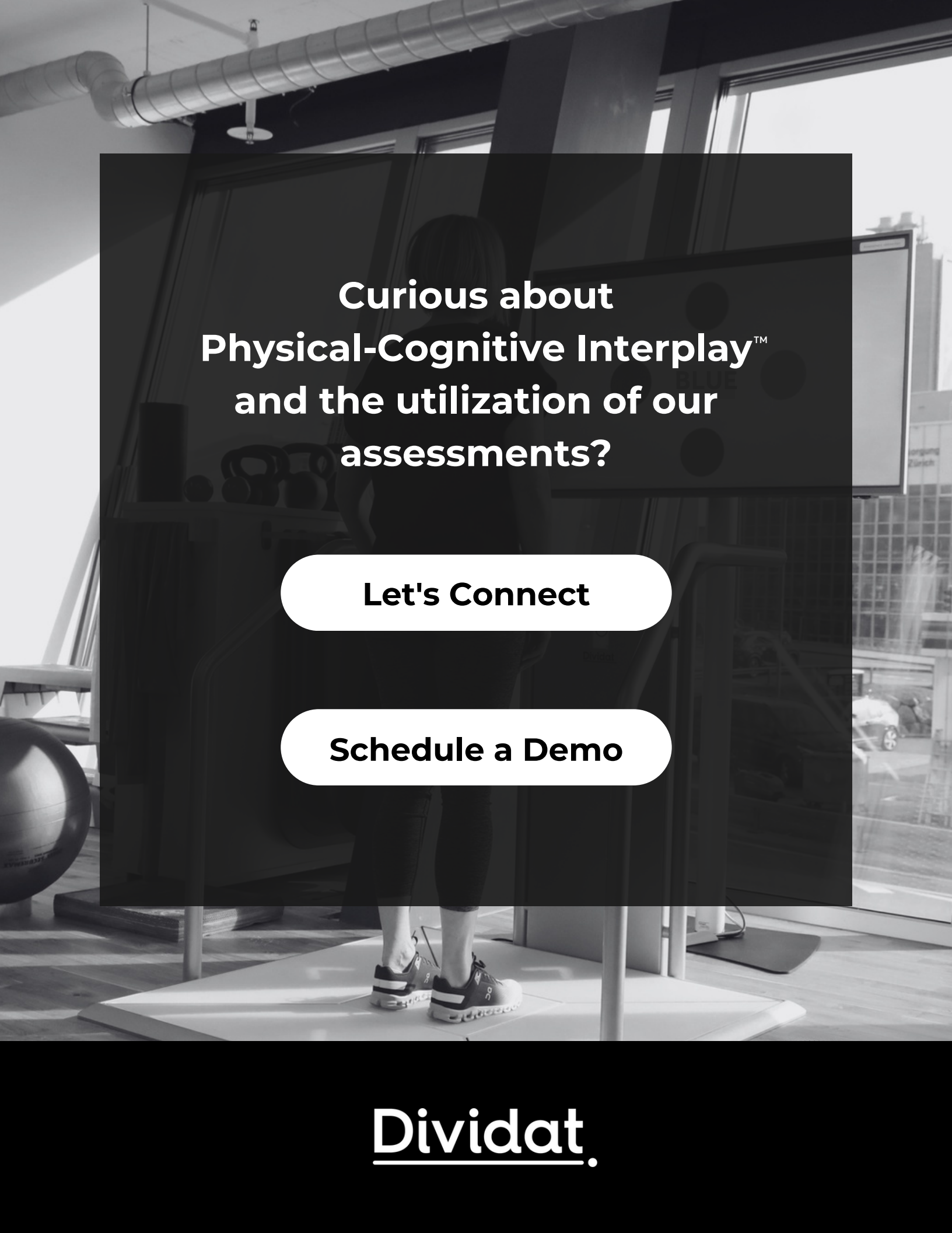


INDIVIDUAL REFERENCE NORM

The "yardstick" for the evaluation of a measurement result is the performance of the **individual**. The individual is compared to him/herself in terms of an intraindividual longitudinal comparison. This norm is excellent for assessing differences in performance after, for example, a training period (objectification of training success).

SOCIAL REFERENCE NORM

The "yardstick" for evaluating a measurement result is the performance of a **selected group of people (reference sample)** who have also undergone the procedure. The individual is compared to this group or the individual performance is ranked in relation to the performance of the reference sample. The creation of a social frame of reference is called normalization with the result of so-called norm tables.

A black and white photograph of a person standing on a platform in a gym. The person is wearing dark leggings and sneakers. In the background, there is a large screen displaying a person's silhouette. The gym has large windows and various pieces of equipment like kettlebells and a medicine ball are visible.

**Curious about
Physical-Cognitive Interplay™
and the utilization of our
assessments?**

Let's Connect

Schedule a Demo

Dividat.