

Dual Task Applications

Mike Studer, PT, DPT, MHS, NCS, CEEAA,
CWT, CSST, BFPCE, FAPTA

Oregon State University
Adjunct Professor

Dual Task Applications

Recalling what we have learned:

- Dual task is important to help us automatize
- Dual task performance should involve “cost”
- Dual task can be an effective and efficient physical and cognitive stimulus for learning and re-learning
- Person specific programming is essential
- We have high-tech and low-tech options in DT

Next-level DT: Expanding the physical task selection

Physical tasks are not *always* primary + should not be limited to walking. Other options:

Walking

Cycling

Dressing/ADLs

Hygiene

Propelling w/c

Driving

Skateboarding

Running

Weight lifting

Elliptical

Swimming

Advancing BB or soccer (dribbling)

Skipping

Playing pickleball

Dance

Next-level DT: Practical auditory distracters

Upcoming appointments

Conversation comprehension

Driving or walking instructions

Podcast or TV show

Simon says

Verbal instructions: coach, boss, teacher

Feedback on form during activity

“Drive thru dilemma”. Tell me your orders...

Shopping list iterated verbally

Musical chairs

Story problem

Party or business introductions (new name-face)

Next-level DT: Practical visual distracters

Describe the scene/environment

Find/seek (scavenger)

Observe event for later recall

Route find/signs

Cross-out all of the _____ (on paper)

Locate historical markers

Go-No-Go card games, spoons

Sightseeing

Compare/match

Observe movement, repeat

Memorize an environment actively

Vigilance, watching for signs of danger/threat

Watch for our friends in a crowd/on the road

Next-level DT: Practical manual distracters

Deal cards

Attach or sort photos on phone/tablet

Pull item out of a bag

Clean eyeglasses

Fill/pour a cup L -R-L

Sign/write/type

Unzip backpack and retrieve item

Pedal stationary bike/restorator

Remove lid and drink

Reaction speed/dexterity: speed bag (boxing)

Texting or email on mobile phone

Sign name/write or keyboard

Next-level DT: Practical cognitive distracters

Follow sequence (dance steps, recipe)

Go-No-Go w rule change/cognitive set

Calculations from recall (sequential)

Trivia

Recall personal information: pets,
old phone #s, addresses, classmates

Solutions to practical problems
(locked out, riddles, enough gas to get there)

Spatial reversal

Spell or digits backwards

Recall address of destination

Recall route

Memorizing a poem

Lists/categories (flowers, breeds, car models,
teams, states, names, brands)

High Tech Options and Advantages



High Tech Options and Advantages



High Tech Options and Advantages



High Tech Options and Advantages



High Tech Options and Advantages



High Tech Options and Advantages



High Tech Advantages

- Objective, “third party administrator” effect
- Consistent, reproducible
- Easily gamified – scores are apparent, intuitive
- Opportunity to level
- Variety
- Affords self, dyad, group and norm comparison

Guiding Principles in Dual Task

DTs are more difficult than single task

Some people are performance-averse

We benefit clients/patients when we set lower expectations (see #1)

Familiar tasks can be a great start

Understanding the WHY is important for us all

We increase difficulty with: novelty, volume, and pressure

Keeping it real-world works well for us all (task specificity)

A good DT program is person-specific and comprehensive (covers all categories)

While fun and play are appreciated by most. Gaming/contrived activities can anger some.

Extend the Learning

For more ideas on DT, or questions in applying:

mike@mikestuder.com