

# No ones likes to be told what to do... How then should cognitive assistance be provided to individuals with a traumatic brain injury?

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## INTRODUCTION

- Physical deficits affecting mobility after a traumatic brain injury (TBI) are compensated with canes, walkers or wheelchairs.
- When someone has cognitive deficits, are there equivalent "assistive devices" in the cognitive realm that an OT can use?
- Using the IADL Profile<sup>1</sup>, an ecological evaluation of the person's functioning in complex activities, occupational therapists (OTs) provide the least amount of assistance a person with brain injury needs in an individualized way.



## OBJECTIVE

Identify emerging profiles of needs and methods of providing cognitive assistance to facilitate thought processes in individuals with moderate and severe TBI assessed by an OT during an ecological evaluation (IADL Profile).

## METHOD

### Selection of 50 videos

Using videos of individuals with TBI assessed with the IADL Profile during meal preparation :



Dressing to go out

Going to the grocery store

Grocery shopping

Preparing a hot meal

### Analysis of 50 videos

Using the software StudioCode and a new coding grid based on Le Dorze et al.<sup>2</sup>

#### Characteristics of the person with TBI :

- Error patterns (e.g. difficulty identifying errors) and observed behavior (e.g. inaction)

#### Therapist :

- Method of providing assistance

Exploration of **emerging profiles** according to the content analysis of videos by grouping participants with similar error patterns and behaviors

## RESULTS

Various profiles of difficulties (error patterns and observed behaviors) in individuals with TBI and methods of providing assistance that facilitated their thinking emerged from this study. Of these profiles, four are described below :

### Profile #1 : Inaction and slowness

#### Characteristics :

- Difficulty initiating decision-making and planning
- Significant delays and inaction when planning and completing tasks
- Difficulty identifying their errors when executing tasks

#### How their thinking was facilitated :

Provide assistance to help them 1) restart their thinking, 2) stimulate their thought process and 3) reactivate task-related memories. Providing cues can also be helpful.



### Profile #2 : Cognitive rigidity and difficulty adapting

#### Characteristics :

- Difficulty formulating a new goal (which may be outside their usual plan)
- Suggest inappropriate solutions according to the context
- Difficulty finding alternative solutions and modifying their plans

#### How their thinking was facilitated :

Provide assistance to help them 1) stimulate their thought process, 2) question them about the solutions they propose and 3) reactivate task-related memories. Providing cues can also be helpful.



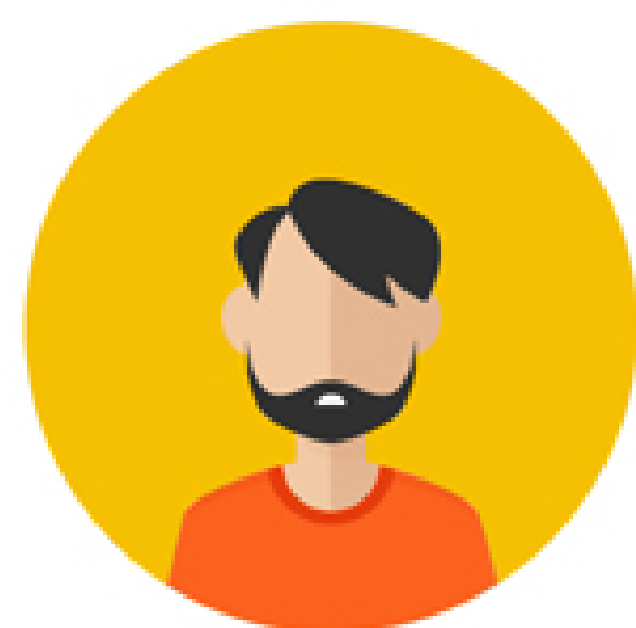
### Profile #3 : Distractibility and difficulty staying focused on the task

#### Characteristics :

- Difficulty staying focused on the task (e.g. stops the task, speaks about unrelated subjects)
- Slowness when planning or completing the task
- Difficulty identifying their errors and correcting them

#### How their thinking was facilitated :

Provide assistance to help them 1) restart their thinking and 2) scaffold on previous ideas. Providing cues and reminding them of elements of the task they are meant to complete can also help.



### Profile #4 : Difficulty identifying and correcting errors

#### Characteristics :

- Difficulty identifying potential and actual errors in the task
- Difficulty modifying their plan and correcting their errors
- Difficulty making decisions

#### How their thinking was facilitated :

Provide assistance to help them 1) question themselves about their actions and ideas to help them identify their mistakes and 2) correct themselves by providing cues.



## DISCUSSION & CONCLUSION

- This study explored various emerging profiles of difficulties and methods of providing assistance that could facilitate the thinking of individuals with TBI without thinking for them.
- Using these result, OTs could obtain valuable information from the assistance that facilitated an individual's thinking to design personalized treatment interventions that provide the least amount of assistance required for successful meal preparation.

## RÉFÉRENCES

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