



Intellectual potentials and learning abilities of „Second Chance“ Students

Example of Relation Between Working Memory and Adult Illiteracy

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Correlations

- ▶ Socio-economic status
- ▶ Primary family level of education
- ▶ Motivation and interests
- ▶ Geography
- ▶ Health, physical condition and nutrition
- ▶ Lack of stress and mental health
- ▶ Social groups
- ▶ Technology

- ▶ **Cognitive abilities?**



**Learning/Education
success**

Ability to learn and education success – predictive relation?

Learning ability

**Psychometric variables
(Intelligence)**

**Cognitive psychology
variables
(Working memory)**



**Learning/Education
success**

Intelligence

- ▶ Raven's advanced progressive matrices



- ▶ WAIS (Wachsler Adult Inteligence Scale)



Working Memory (WM)


- ▶ **is a better predictor of learning success than psychometric measures of intelligence** (Alloway&Alloway, 2010).

Correlations:

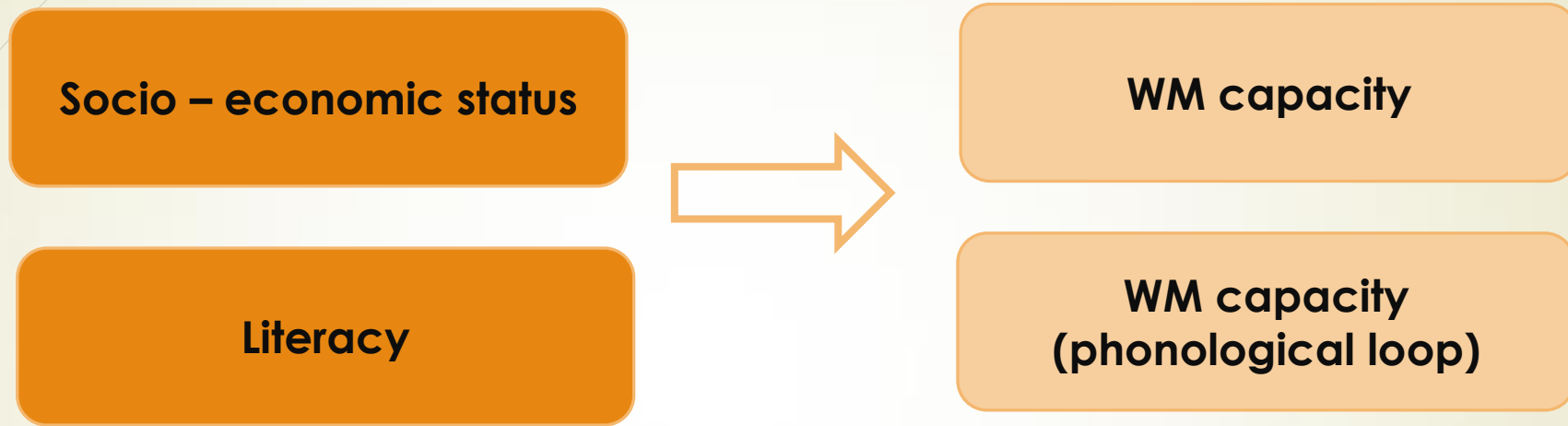
- ▶ WM capacity and literacy (Swanson, 1994).
- ▶ WM capacity and efficiency of foreign language acquisition (Miyake & Friedman, 1998).
- ▶ Phonological loop and acquisition of novel words (Papagno & Vallar, 1995).
- ▶ WM and learning of syntax (Caplan & Waters, 2003).
- ▶ WM and writing skills in elderly (Kellogg, Olive & Piolat, 2007).
- ▶ VSSP and mathematical ability (Bull & Johnston, 1997; Dark & Banbow, 1990.).



Characteristics of individuals in poverty

- ▶ Issues with Intelligence tests and underprivileged groups.
 - ▶ Time perspective in poverty context and future image of oneself.
 - ▶ Poverty and institutions.
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The question of direction



- ▶ income, education, caste and occupation of a father as well as school **environment show a significant relation with a learner's immediate memory span** (Kendra and Uijha, 2009).
- ▶ **Phonological processing is enhanced by literacy** (Kosmodis, Zafiri & Politimou, 2011).
- ▶ The study by using the PET (positron emission tomography) scans of illiterates and literates while performing different language tasks, showed that brain activity of illiterates is **more localized, but also differently localized** in comparison to those who are literate (see Castro-Caldas, Petersson, Reis, Stone-Elander, & Ingvar, 1998).