

FACULTY OF SOCIAL SCIENCES

Pavia, November 2008

Scientific Research on Giftedness

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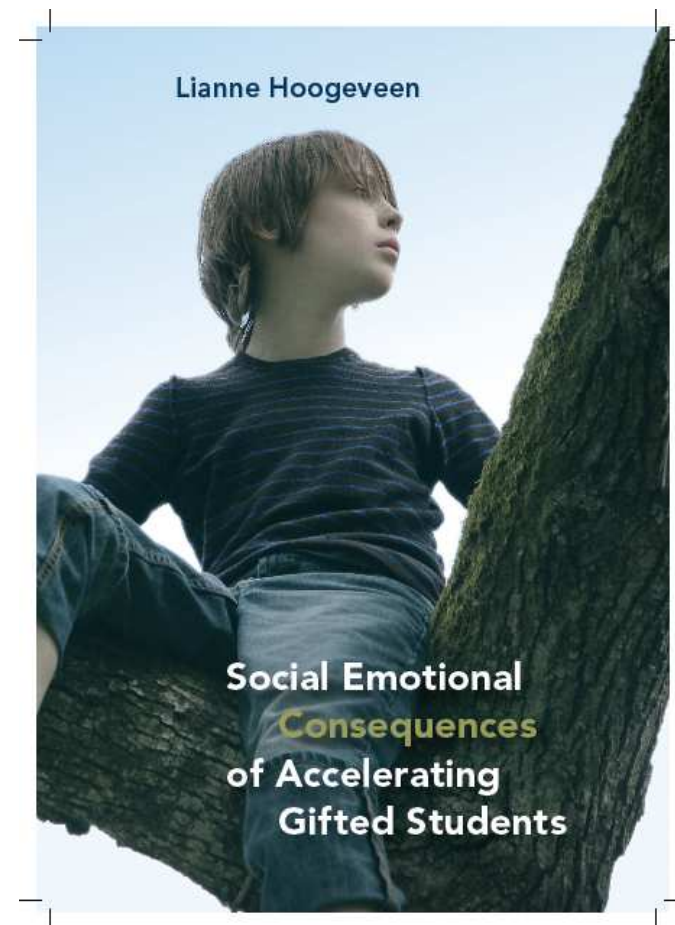


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Scientific Research on Giftedness

Social Emotional Consequences of Accelerating Gifted Students

- Effects of Educational Programs for Gifted Students
- Teacher Attitudes toward Accelerated Students
- Self-concept and Social Status of Accelerated Students
- Social-emotional characteristics of Gifted Accelerated and Non-accelerated Students





Conceptions of Giftedness

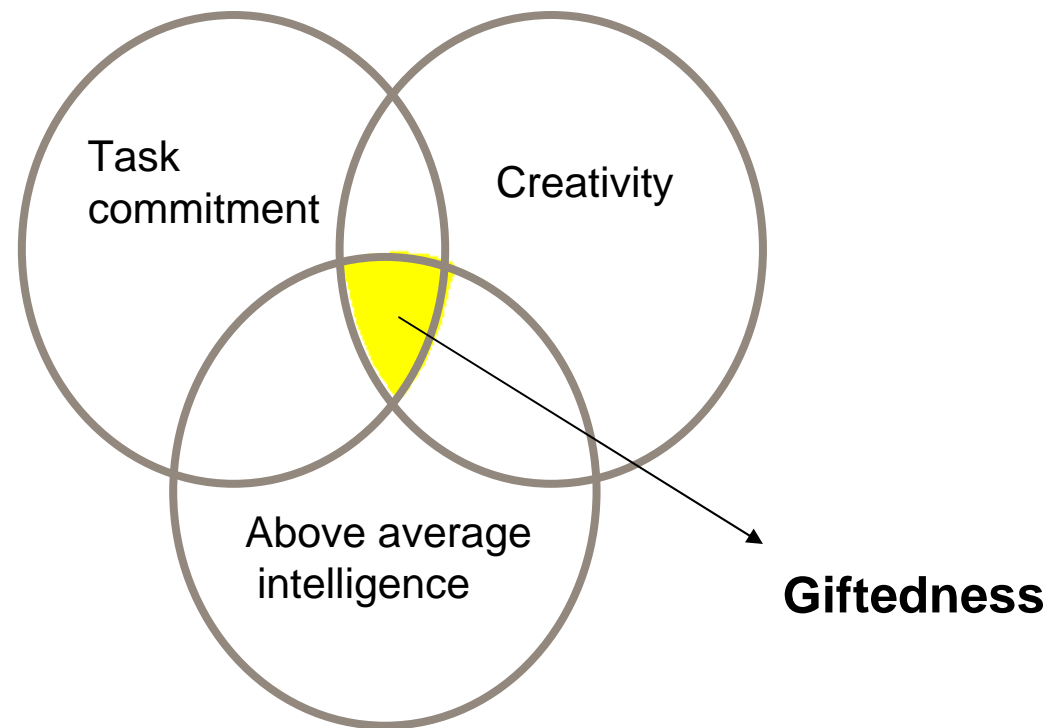
- Giftedness versus Talent (Gagné, 1993; 2000)
- Multiple Intelligences (Gardner, 1983)
- Need of one general concept (Gagné, 1999)
- Advantages of more competitive concepts (Borland, 1999)

A photograph of three models in bikinis on a boat deck, overlaid with a semi-transparent pink filter. The models are in various poses: one is lying down on the left, one is sitting in the center, and one is kneeling on the right. The text 'Different models' is centered over the image in a large, white, sans-serif font.

Different models

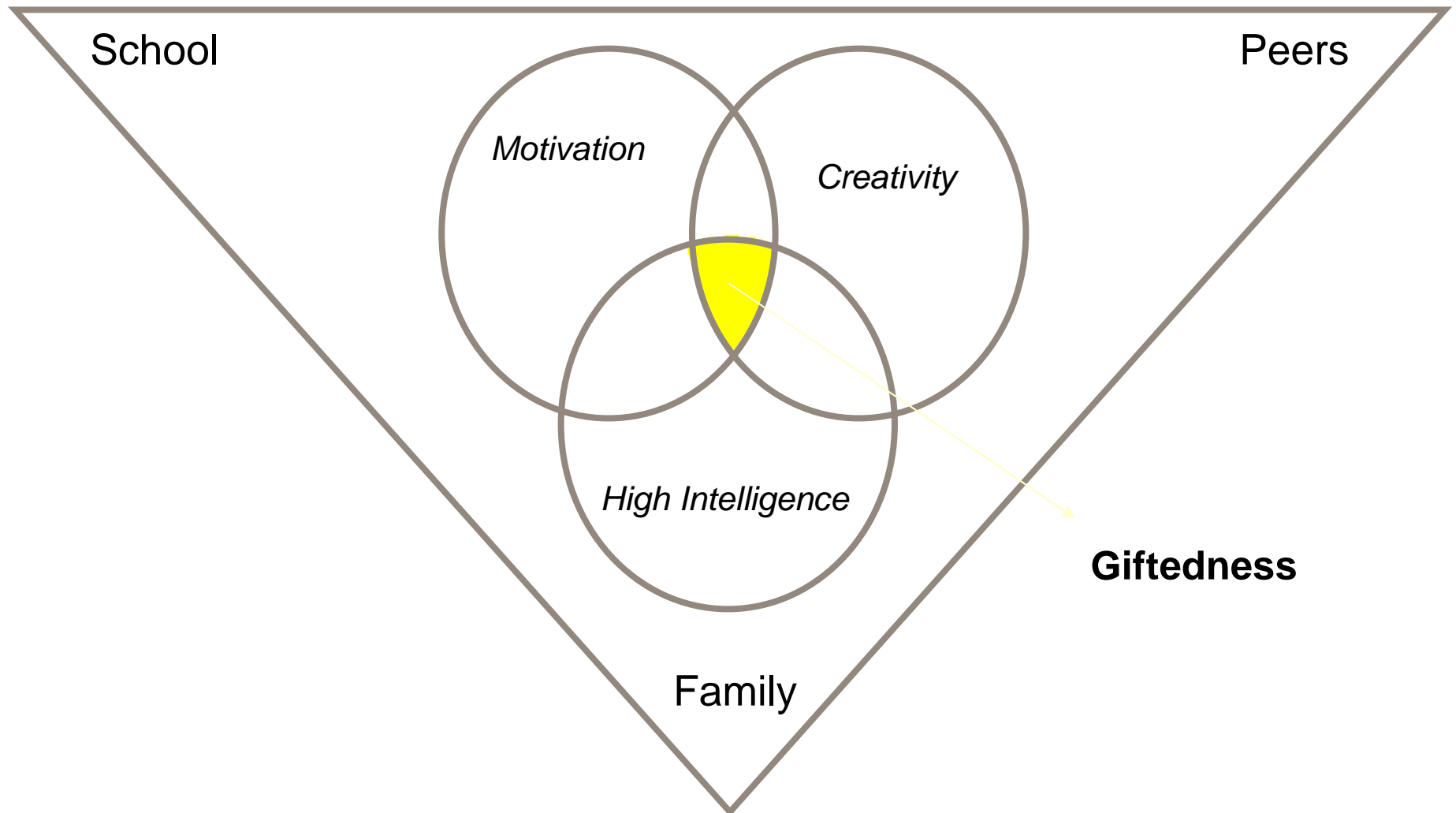


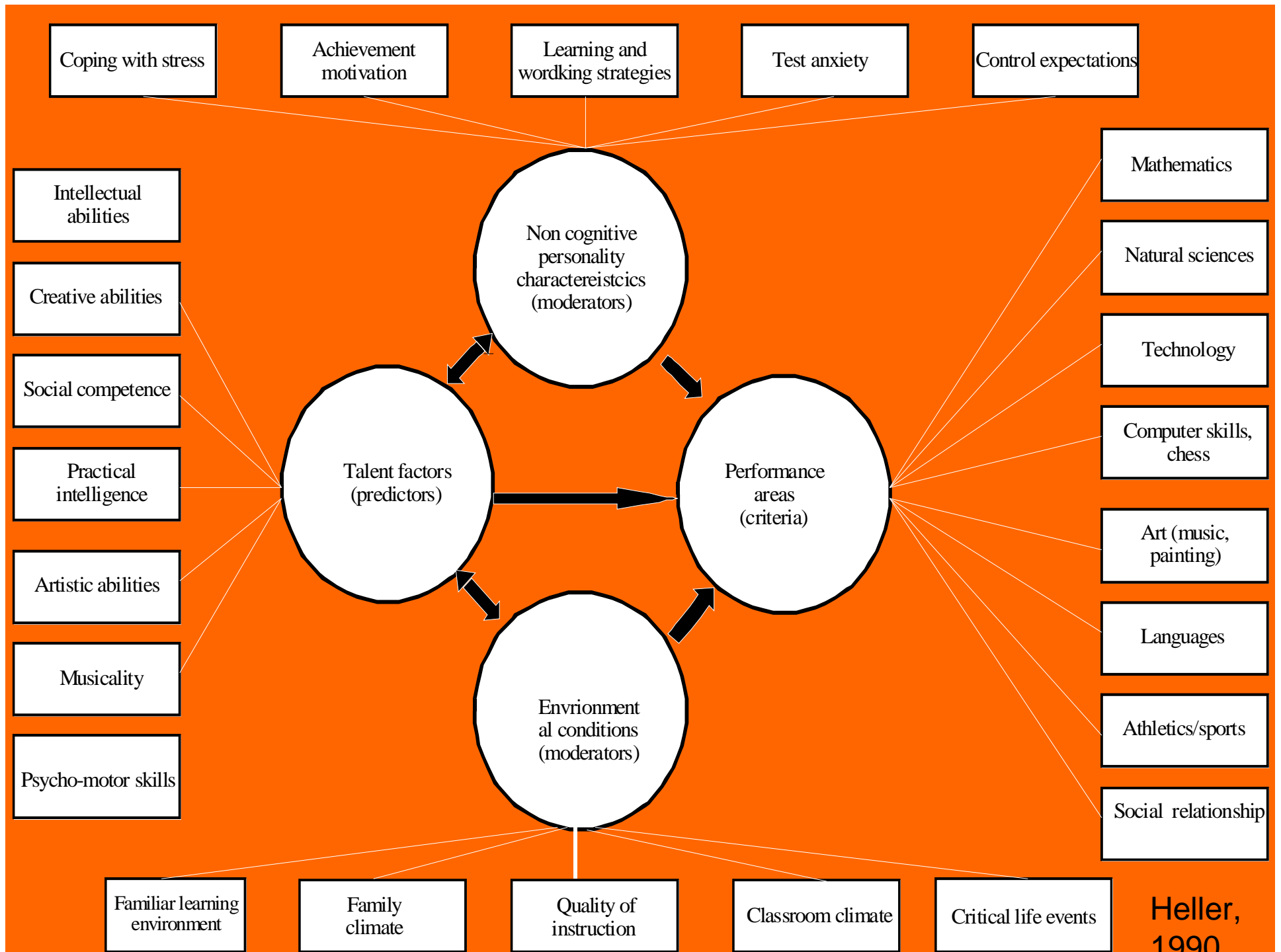
Three Rings Model (Renzulli, 1978)





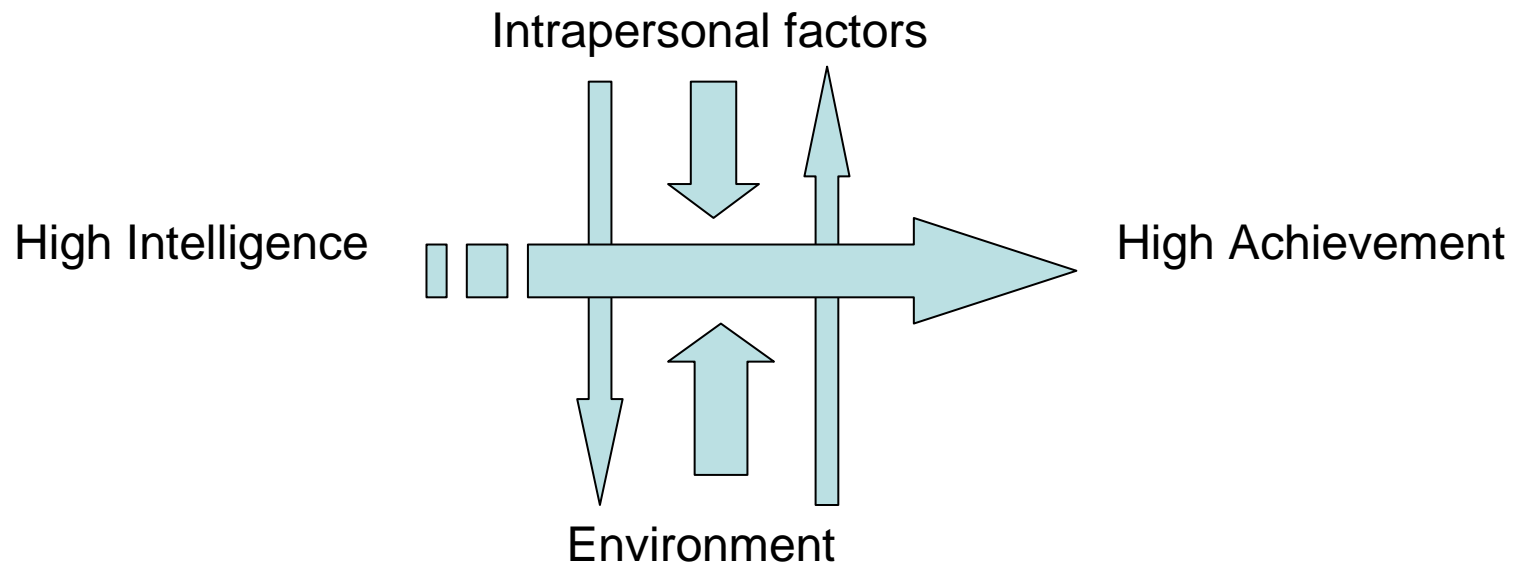
Multifactorial model of Giftedness (Mönks, 1992)







Gifted?





Research on Giftedness



Research Designs of Giftedness

- True experiments
- Qualitative research
 - Cohort studies
 - Cross-sectional studies
 - Case studies
- Literature review
- Meta-analyses



Research Design of Alvarez González (2002)

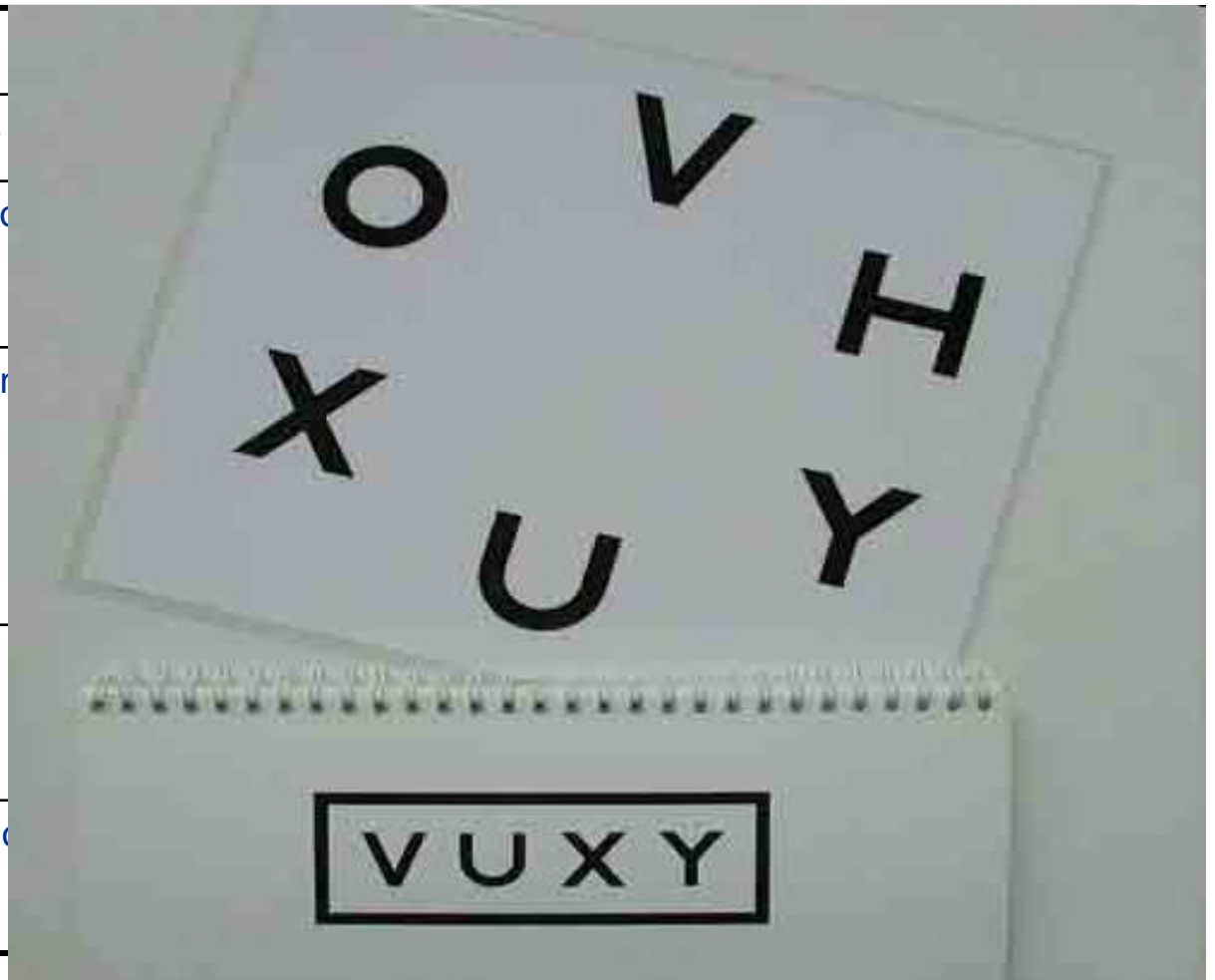
Groups		Pretest	Programa	Posttest
Selected for the gifted group	Experimental	T1	X	T2
	Control	T3	-	T4
Not selected for the gifted group	Experimental	T5	X	T6
	Control	T7	-	T7



Research Materials

- Questionnaire
- Interview
- Observation
- Test

<i>Item</i>
Two options
Multiple optio
Classification
Scales
Open questio





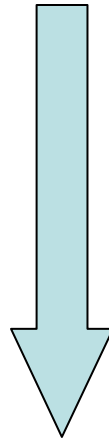
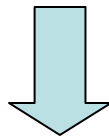
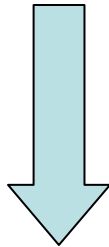
Research questions on Giftedness

- *Themes:* Educational and Personality Psychology: 70-80 %.
- *Research Methods:* more applied than fundamental research; more descriptive than (quasi)experimental research
- *Most investigated group:* Students
- Differences between American and European studies.



Effects of Educational Programs for Gifted Students

- Literature data files (ERIC, PsychINFO, PiCarta)
- References
- Consulting experts



- 62 experimental studies



Criteria

- Participants: gifted students
- Results expressed in quantitative measurable outcomes of cognitive and/or social-emotional functioning
- Control versus experimental group and/or pre-post measurements
- Language: English, German, Spanish, Dutch or French
- Studies from 1993 until 2003



Characteristics studies

- 26 studies
- USA (15), Spain (2), Germany, Australia, Czech Republic, China, Hungary, Canada, Israel, Peru, Iceland



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Effects of Educational Programs for Gifted Students

- 23 international studies on the effects of educational programs for gifted students
- Most studies evaluated enrichment programs
- Almost all programs positively influence the cognitive and social functioning of students
- The (composite) self-concept of students enrolled in gifted programs is less positive than the self-concept of non-participants



What about the Self-concept?

- Self-concept is multidimensional and hierarchic (Shavelson, Hubner & Stanton, 1976)
- Difference between academic and non-academic self-concept
- Gifted classes and schools vs. Within-class Enrichment and Pull-out programs





Teacher Attitudes toward Accelerated Students

Research question: What are the experiences of Dutch high school teachers with accelerated students, what are the attitudes of Dutch teachers towards acceleration, and to what extent are the attitudes of Dutch teacher open to change?

Method:

Participants: 334 teachers, 31 Dutch secondary schools

Materials: questionnaires

Procedure: survey and intervention

Analyses:

- Explorative factor analyses
- Pearson's correlation tests (age, teaching experience)
- One-factor ANOVAs (sex, type of school, subject taught, experience with accelerated students, opinion)



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Teacher Attitudes toward Accelerated Students

- Teachers' attitude toward the cognitive functioning of accelerated students is positive
- Teachers worry about social isolation and social competence of accelerated students
- More experience with accelerated students > more negative attitude toward accelerated students
- Specific and goal oriented information about acceleration and giftedness leads to a more realistic, more positive, attitude toward gifted and accelerated students.



Self-concept and Social Status of Accelerated Students

- Research question: What are the effects of acceleration during elementary school on the development of the self-concepts and social status of such students during high school and how do such accelerated students compare to non-accelerated students in high school?
- Method:
 - *Participants*: 998 students (of which 131 (13.10%) had been accelerated), who together attended 36 first classes of 30 Dutch secondary schools
 - *Materials*: SDQ (self-concept); sociometric status (social status)
 - *Procedures*: 3 moments of measurement
- Analyses: Repeated-measures ANOVAs with **acceleration** as **between-subjects factors** and **time of measurement** as the **repeated measure**



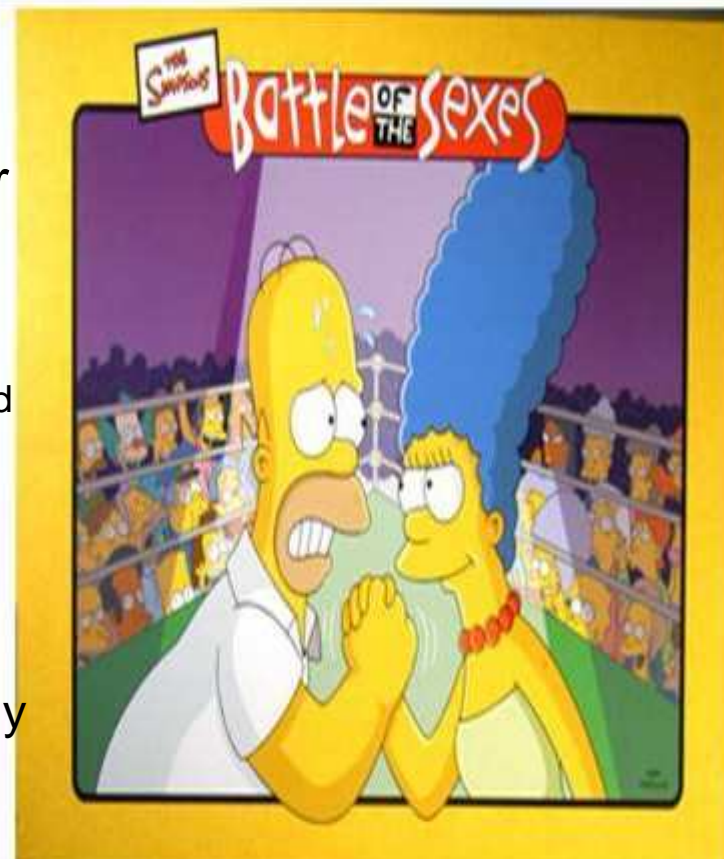
Self-concept and Social Status of Accelerated Students

- Academic self-concept of accelerated students more positive than academic self-concept of non-accelerated classmates
- Social self-concept of accelerated students less positive than social self-concept of non-accelerated students classmates
- Social status of accelerated students unexpectedly negative!
- Gender differences



Gender differences

- Social self-concept and social status girls improved in 2nd year
- Social self-concept and social status of boys aggravated in 2nd year
- Possible explanations?
 - Girls focus intelligence on socially accepted themes (Kerr, 2000)
 - Girls mature earlier





Social-emotional characteristics of Gifted Accelerated and Non-accelerated Students

- Research question: What are the effects of academic acceleration on the social-emotional characteristics of gifted students when compared to non-accelerated gifted students?
- Method:
 - *Participants*: 203 children, adolescents and young adults, aged 4 to 27 (boys: 136, of which 94 accelerated; girls: 67, of which 54 accelerated), and their parents and teachers
 - *Materials*: SDQ (self-concept); diary (social contacts), questionnaire (social behavior)
 - *Procedures*: participants and their parents filled in the questionnaires
- Analyses: MANOVA's



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Social-emotional characteristics of Gifted Accelerated and Non-accelerated Students

- Barely no differences
- Accelerated students less influenced by other personal or environmental factors
- Skipping more than 1 grade does not negatively influence social-emotional characteristics
- Long term effects of acceleration appear to be positive



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Interpretation of different findings

- Methodological design:
 - Control groups differ
 - Self-evaluation vs. peer nomination
- Problems not because of acceleration, but because of giftedness?
- Teachers' beliefs and attitude
- Moment of measurement
- Most studies (until now) from U.S.A.



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Recommendations for Future Research

- Longitudinal interventions

- Talent factors
- Personal factors
- Family factors
- School factors



Relation and Causality

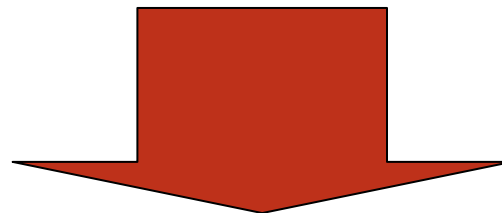


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Recommendations for Educational Practice

- More extensive training in giftedness and gifted education for teachers
- Commitment of scientists, governments, teachers and parents



Optimal education for all students, including gifted students



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Social Emotional Consequences of Accelerating Gifted Students

- Questions?
- Thank you!

