

Evaluation of gifted students motivation: More than to be or not to be motivated

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Plan

- Theory
 - Motivation and giftedness
 - Motivation specificities
 - Achievers and underachievers
- Methodology
- Results 1: To be or not to be motivated ?
- Results 2: Specificities on gifted motivation?
- Implications on motivation measurements

Motivation and giftedness

Motivation is a key concept in giftedness theories:

Motivation = catalyst, moderator

(Gagné 1994; Heller & Perleth, 1993)

Motivation = criterion

(Three-ring conception of giftedness,
Renzulli, 1998)

Motivation = specific giftedness

(Gottfried & Gottfried, 2004)

MOTIVATIONAL SPECIFICITIES?

In contrast with regular students:

↑ intrinsic motivation; academic self-concept; performance and learning goal

(e.g. Hong & Acqui, 2004; Gottfried & al, 2005; Vallerand & Gagne, 1994; McCoach & Siegle, 2003; Schunk and Swartz ,1993).

But several studies find **no differences:**

self efficacy and goal orientation (e.g. Gresham, Evans & Elliott, 1988), Ziegler, Heller, and Broome ,1996).

Bias of measurement:

often gifted population are achievers

Achievers and underachievers

Motivation is a major factor in understanding the differences between potential and achievement (Friedman-Nimz & Skyba, 2009; McNabb 2003; Baker, Bridger, & Evans, 1998)

Compared to gifted achievers, underachievers has lower: **academic self-perception, motivation and self-regulation, goal valuation** (Dowdall & Colangelo, 1982; Reis & McCoach, 2000, McCoach & Siegle, 2003; Whitmore, 1980).

But: only few studies confront their results with a nongifted population.

Aims:

Identify specificities of gifted students' motivation.

Take account of:

- . Level of achievement
- . Confront results with nongifted population

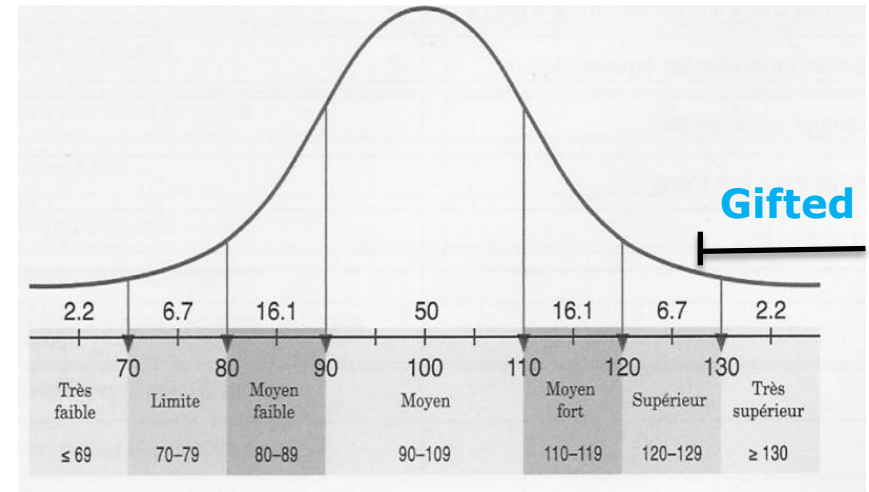
Sample (n=103)

Level of ability:

IQ test (Wechsler sale)

Criterion of giftedness:

Gifted : $IQ \geq 127$ (N= 43);



Level of achievement:

Success: no repeating a year.

Failure: one or more repeating a year.

A posteriori study on secondary school with young adults
(M= 21,1 years old).

Measures

Task values (Wigfield and Eccles, 1983, 2000, 2002)

Intrinsic value

Attainment value

Utility value

Cost

Self efficacy

Sources of self-efficacy beliefs (Bandura, 1989, 2003)

Mastery experiences

Social modeling with peers and adults

verbal and social persuasions.

Relationship with teachers and peers.

Results 1:

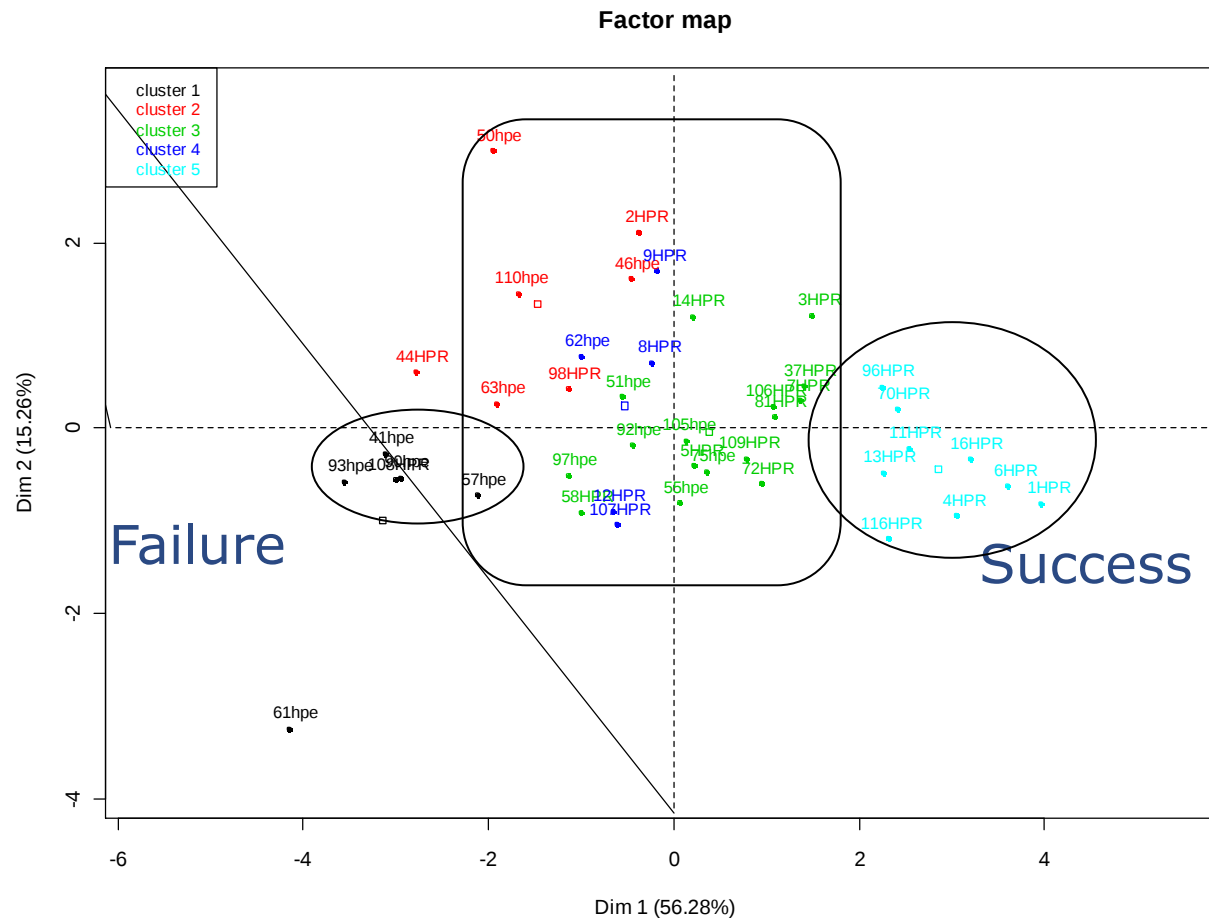
To be or not to be motivated ?

On gifted students (N=43)

Results 1

Value	Gifted: Success (N= 27) M et (SD)	Gifted: Failure (N= 16) M et (SD)	Sig (2-Tailed)
Intrinsic value	2,89 (0,93)	2,24 (0,65)	,01**
Attainment value	3,55 (0,95)	2,43 (0,78)	,00**
Utility value	3,06 (0,95)	2,47 (0,54)	,01**
Cost	2,00 (0,73)	3,08 (0,96)	,00**
Expectancy/ ability perceptions	4,58 (0,50)	4,17 (0,51)	,01**
Sources of Self-Efficacy			
Mastery Experiences	3,94 (0,90)	2,81 (0,46)	,00**
Social Persuasion	4,32 (0,50)	3,84 (0,95)	,03*
Social Modeling: adults	3,62 (0,71)	3,13 (0,75)	,03*
Social Modeling: peers	3,06 (0,75)	3,14 (0,61)	,12
Relations			
Relations with peers	3,41 (1,18)	2,73 (1,22)	,08
Relations with teachers	3,90 (0,74)	2,81 (0,92)	,00**

Results 1: clustering



Cluster analysis

Cluster 1: "failure"

-- all variables
(unless utility)



Cluster 5: "success "

++ all variables
(Unless peers relation)

Cluster 2

Higher cost ---
Lower utility ---
Lower interest ---

Cluster 3

peer relations++

Cluster 4

Girls,
self efficacy - -

Summary: Results of the two analysis

Comparison of means: gifted who success have higher scores on motivation variables

Cluster analysis: motivation is important to understand underachievement. But there are different profile of motivation.



Need of evaluation on different motivational aspects to explain underachievement and help gifted students to succeed.

Results 2:

Are there specificities on gifted motivation?

Continues point of view of intellectual giftedness
Total sample (n= 103)

Stepwise regression

	B	SE B	Béta
Step 1			
Constant	92,51	8,92	,31**
Self efficacy	6,86	2,07	
Step 2			
Constant	97,37	8,78	
Self efficacy	8,47	2,08	,39***
Interest	-4,07	1,42	-,27**

R²adjusted = .09 for step 1, R² adjusted= .15 for step 2 ;

** p < .01, *** p < .001

Dependant variable : total IQ

Higher levels IQs tend to be associated with two relevant variables:

- **Higher self efficacy**

Support giftedness literature

- **Lower interest toward scholastic tasks**

In opposition with results which show higher intrinsic motivation.

Effect of heterogeneous level of achievement of our population.

Implications on motivation measurements with a gifted population

Beyond global tendencies, there are different motivational profiles;

e.g. some students present low self efficacy perception.

So evaluation of gifted students motivation is more than to be or not to be motivated

For gifted counseling: need of global evaluation on different motivational areas.

Implications on motivation measurements with a gifted population

Gifted children tend to have higher perceived self-efficacy:

- › Task involvement could be better than self efficacy to predict achievement (Gagné & St Père, 2002).

To solve opposition in gifted motivation literature:

- › Identify level of achievement population (e.g. achievers , underachievers, school grade, ...).



Thank you for your attention!

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