

A comparison of gifted high,  
moderate, and low achievers in  
their attitudes toward the school  
motivation, self-regulation,  
motivational goals, and goal  
orientations

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# *Background*

- As many as 50% of gifted students underachieve (Heacox, 1991; Hoffman, Wasson, & Christianson, 1985).
- What might affect gifted students' achievement?
- Do personality characteristics differentiate between gifted high and low achievers?

# *Background*

Most of the literature:

- Compared gifted high achievers to low achievers or compared gifted students and non-gifted students.
- Focused on investigating one variable or combined two variables.
- Investigated the problem among primary or junior high school children.
- Investigated the problem in terms of achievement in general.

# *A statement of purpose*

The differences



Motivation

Self-Regulation

Motivational Goals

Goal Orientations

Attitudes

# *The Sample of the study*

- The sample was drawn from a selective school in NSW.
- All participants were high ability students from grades 10 and 11 .
- English and Mathematics teachers were asked to rank the students in to three levels in terms of their performance.

# *The Significance of the study*

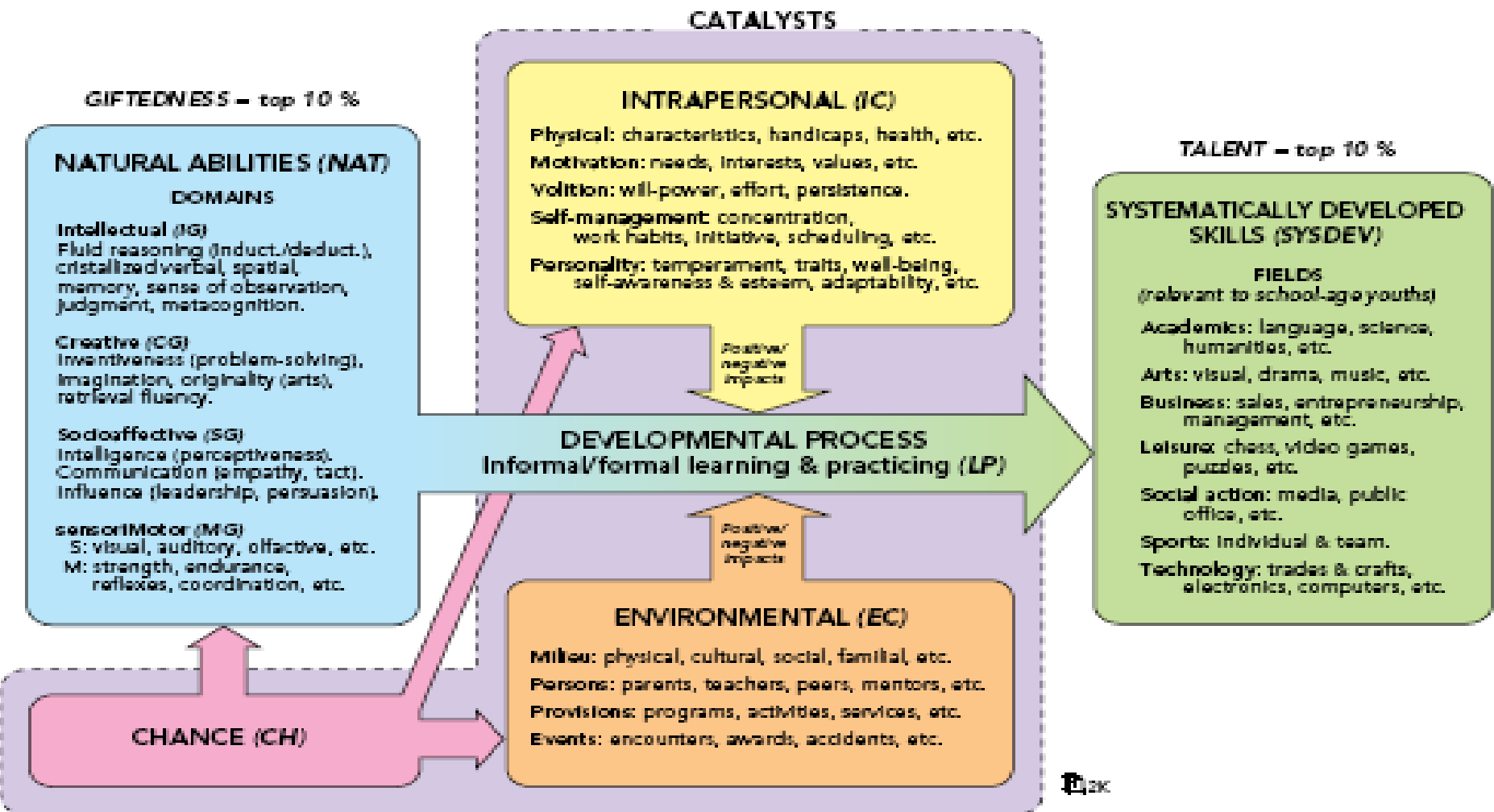
- Identifying the differences between gifted high, moderate, and low achievers.
- Creating programs that meet the needs of gifted students.
- Understanding more clearly the picture of gifted students' achievement.



# *Theoretical Framework*

- 1- Definition of giftedness.
- 2- Definition of underachievement.

# Gagné's definition of giftedness





# *Definition of underachievement*

Underachievement is defined as a discrepancy between ability and achievement (McCoach & Siegle, 2003; Reis & McCoach, 2000; Rimm, 1995; Supplee, 1990; Stoeger & Ziegler, 2005).

# *Identification of underachievers*

Teachers' nomination:

- Teachers in selective schools are experienced teachers in the field of gifted education .
- All participants were high ability students in a selective school.
- Teachers' nominations being the way that the discrepancy was operationalized.

# *Design and Procedures*

- The research design is a comparative between-groups design that employed 3 standardized tests .
- Teachers were asked to rank the students into high, moderate, and low achievers in terms of their performance in two subjects: Mathematics and English.

# *Instruments*

1- Goal orientations + motivational goals

The Inventory of School Motivation Scale –R (ISM) (McInerney & Sinclair, 1992).

2- Attitudes toward the school and teachers

The School Attitude Assessment Survey-R (SASS) (McCoach & Siegle, 2003).

3- Learning strategies + intrinsic and extrinsic motivation. The Motivated Strategies for Learning Questionnaire (MSLQ-R) (Pintrich, Smith, Garcia & McKeachie, 1991).

# **Description of the variables analyzed in the study**

**Response Variables:**

**1- Motivation**

**Intrinsic, extrinsic.**

**2- Self-Regulatory Strategies**

**Rehearsal, Elaboration, organization, critical thinking, metacognitive self-regulatory strategy.**

**3- Goal Ordinations**

**Mastery goals, performance goals, social goals.**



# ***Description of the variables analyzed in the study***

## **4- Motivational Goals**

Task, effort, competition, affiliation, social power, social concern, praise, tokens.

## **5- Attitudes**

Attitudes toward school, attitudes toward teachers and class.

# **Description of the variables analyzed in the study**

## **Explanatory Variables:**

- Achievement in Mathematics (three levels).
- Achievement in English (three levels)
- Sex
- Grade



# *Findings/ Motivation*

	10 <sup>th</sup> grade Math	11 <sup>th</sup> grade Math	Males Math	Females Math
Intrinsic Motivation	M>L H>L	H>M H>L	H>M H>L M>L	H>M H>L M>L
Extrinsic Motivation	M>L H>L		M>L H>L	M>L H>L

# *Findings/ Self-Regulation*

	10 <sup>th</sup> grade Math	10 <sup>th</sup> grade E	11 <sup>th</sup> grade Math	Male Math	Female Math
Rehearsal	M>L H>L			H>L	H>L
Elaboration	H>L		H>M	H>L	H>L
Organization	M>L H>L	H>L		H>L	M>L H>L

# *Findings/ Self-Regulation*

	10 <sup>th</sup> grade Math	11 <sup>th</sup> grade Math	Males Math	Females Math
Critical Thinking	M>L H>L	H>L H>M	H>L H>M	H>L
Metacognitive	M>L H>L		H>L	M>L H>L

# *Findings/ Motivational Goals*

	10 <sup>th</sup> grade Math	10 <sup>th</sup> grade E	11 <sup>th</sup> grade Math	11 <sup>th</sup> grade E
Effort	M>L H>L	H>L		H>L
Task	M>L H>L		H>L	M>L H>L
Competition			H>L M>L	M>L H>L

# *Findings/ Motivational Goals*

	Males Math	Males E	Females Math	Females E
Effort	H>L	H>L	H>L H>M	H>L H>M
Task		H>L	M>L H>L	
Competition	H>L	H>L	H>L	M>L H>L

# *Findings/ Goal Orientations*

	10 <sup>th</sup> grade Math	11 <sup>th</sup> grade Math	Females Math	Females E
Mastery Goals	H>L		M>L H>L	
Performance Goals		H>L		M>L

# *Findings/ Students' Attitudes*

	10 <sup>th</sup> grade Math	10 <sup>th</sup> grade E	Males Math
Attitudes toward the school	M>L H>L		
Attitudes toward teachers and class	H>L	M>L H>L	H>L H>M



# *Conclusion*

- High achievers in terms (achievement in Mathematics)
- Intrinsically and extrinsically motivated.
- Using all types of self-regulatory strategies.
- Oriented toward Mastery and performance goals.
- Oriented toward task, effort, and competition.
- Positive in their attitudes toward their school, teachers and class.

# *Conclusion*

- High achievers (achievement in English)
- Using organization as a strategy for learning.
- Oriented toward effort, task, and competition.
- Positive in their attitudes toward their teachers and class.

# *Conclusion*

- Moderate achievers( achievement in Mathematics)
- Intrinsically and extrinsically motivated.
- Using all types of self-regulatory strategies.
- Oriented toward task, effort, and competition.
- Positive in their attitudes toward their school.

# *Conclusion*

Moderate achievers( achievement in English)

- Oriented toward task and competition.
- Positive in their attitudes toward teachers and class.

# *Conclusion*

- Low achievers (achievement in Mathematics)
  - Not Intrinsically or extrinsically motivated.
  - Do not use self-regulatory strategies.
  - Not oriented toward Mastery and performance goals.
  - Not oriented toward task, effort, and competition.
  - Not positive in their attitudes toward their school and teachers and class.

# *Conclusion*

## Low achievers (achievement in English)

- Not oriented toward effort, task, and competition.
- Do not use self-regulatory strategies (organization).
- Not positive in their attitudes toward their teachers and class.



# References

- McCoach, D. B., & Siegle, D. (2003). Factors that differentiate underachieving gifted students from high-achieving gifted students. *Gifted Child Quarterly*, 47(2), 144-154.
- McInerney, D. M., & Sinclair, K. E. (1992). Dimensions of school motivation. A cross-cultural validation study. *Journal of Cross-Cultural Psychology*, 23, 389-406.
- Pintrich, P. R., Smith, D., Garcia, T., & McKeachie, W. (1991). *A manual for the use of the Motivated Strategies for Learning Questionnaire (MSLQ)*. Ann Arbor, MI: NCRIPTAL, School of Education, The University of Michigan.
- Reis, S. M., & McCoach, D. B. (2000). The underachievement of gifted students: What do we know and where do we go? *Gifted Child Quarterly*, 44(3), 152-170.
- Rimm, S. B. (1995). *Why bright kids get poor grades and what you can do about it*. New York: Crown Publishing Group.
- Stoeger, H., & Ziegler, A. (2005). Evaluation of an elementary classroom self-regulated learning program for gifted mathematics underachievers. *International Education Journal*, 6(2), 261-271.
- Supplee, P. L. (1990). *Reaching the Gifted Underachiever: Program Strategy and Design*. New York: Teachers College Press.