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?
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

High	Moderate	Low

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 into 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

GIFTEDNESS = top 10%

NATURAL ABILITIES (NAT) DOMAINS

- Intellectual (IG)
  Fluid reasoning (induct./deduct.), crystallized verbal, spatial, memory, sense of observation, judgment, metacognition.
- Creative (CG)
  Inventiveness (problem-solving), imagination, originality (arts), retrieval fluency.
- Socioaffective (SG)
  Intelligence (perceptiveness), communication (empathy, tact), influence (leadership, persuasion).
- Sensorimotor (MG)
  S: visual, auditory, olfactory, etc.
  M: strength, endurance, reflexes, coordination, etc.

INTRAN-personal (IC)

- Physical: characteristics, handicaps, health, etc.
- Motivation: needs, interests, values, etc.
- Volition: will-power, effort, persistence.
- Self-management: concentration, work habits, initiative, scheduling, etc.
- Personality: temperament, traits, well-being, self-awareness & esteem, adaptability, etc.

TALENT = top 10%

SYSTEMATICALLY DEVELOPED SKILLS (SYSDEV)

- Fields (relevant to school-age youths)
  - Academics: language, science, humanities, etc.
  - Arts: visual, drama, music, etc.
  - Business: sales, entrepreneurship, management, etc.
  - Leisure: chess, video games, puzzles, etc.
  - Social action: media, public office, etc.
  - Sports: individual & team.
  - Technology: trades & crafts, electronics, computers, etc.

DEVELOPMENTAL PROCESS

Informal/formal learning & practicing (LP)

- Positive/negative impacts

ENVIRONMENTAL (EC)

- Milieu: physical, cultural, social, familial, etc.
- Persons: parents, teachers, peers, mentors, etc.
- Provisions: programs, activities, services, etc.
- Events: encounters, awards, accidents, etc.

CHANCE (CH)

Gagné's Differentiated Model of Giftedness and Talent (DMGT.EN.2K)
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  

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
<table>
<thead>
<tr>
<th>Findings/ Motivation</th>
<th>10th grade Math</th>
<th>11th grade Math</th>
<th>Males Math</th>
<th>Females Math</th>
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## Findings/ Self-Regulation

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<td>Performance Goals</td>
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- H > L: Higher than Lower
- M > L: More than Less
### Findings/Students’ Attitudes

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<td><strong>Attitudes toward teachers and class</strong></td>
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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


