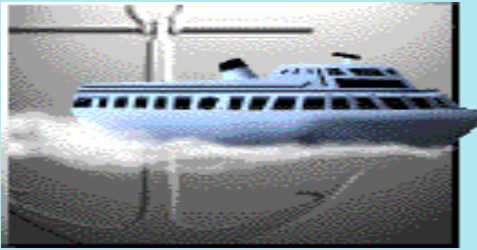# Increasing Academic Motivation and Preventing Underachievement

Sally M. Reis

Board of Trustees Distinguished Professor

Letitia Morgan Chair in Educational Psychology

www.gifted.uconn.edu

What is Achievement?

The act of accomplishing something of merit by means of effort, skill, and/or perseverance

What is **U**nderachievement?

The most common component of the various definitions of underachievement in gifted students involves identifying a discrepancy between ability or potential (expected performance) and actual achievement (performances).

(Baum, Renzulli, & Hebert, 1995a; Butler-Por, 1987; Dowdall & Colangelo, 1982; Emerick, 1992; Redding, 1990; Reis & McCoach, 2000; Rimm, 1997a; 1997b; Supplee, 1990; Whitmore, 1980; Wolfle, 1991).
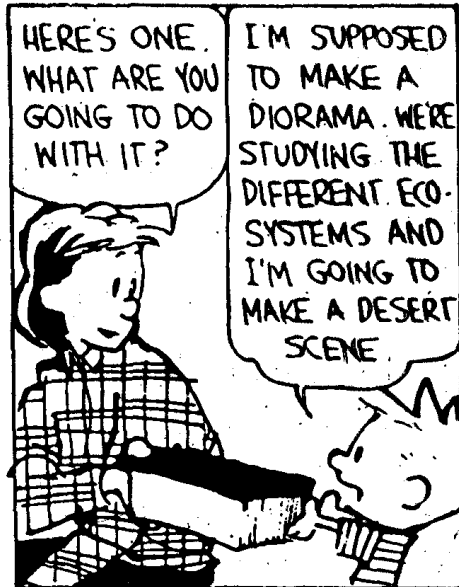
Levels of Underachievement
How Many Students and at What Level?

- Minimal (lower grades than expected).

- Moderate (some failing grades or actions)

- **Pervasive and devastating (school drop-outs, life failures)**

NextGenCT
High-achieving students applying to a STEM major have the opportunity to be selected as a STEM Scholar.

Calvin and Hobbes

by Bill Watterson

Some Reasons for Underachievement

- Lack of Challenge and Effort
- Poor Academic Self-Perception
- Lack of Parental Monitoring and Discipline
- Low Self-Efficacy, Motivation and Self-Regulation
- Learning Disabilities (diagnosed or not)
- Poor Engagement/Attitudes toward School
- Mismatch of Goals—Self and School

"I didn't actually read the book, but I did play the video game loosely based on it."

Research has found that 13 years after high school, the educational and occupational status of high school underachievers paralleled their grades in high school, rather than their abilities.

45% of gifted students who were underachieving in grade 7 **continued to underachieve** throughout junior high and high school.

Differences exist between underachievement in school and life, but there is a relationship and clear consequences.

the SOCIAL and EMOTIONAL DEVELOPMENT of GIFTED CHILDREN

What Do We Know?

edited by

Maureen Neihart
Sally M. Reis
Nancy M. Robinson
Sidney M. Moon

Research Findings

- *There is no research evidence to suggest that gifted and talented children are any less emotionally well adjusted than their age peers.* Aspects of their life experiences, however, that result from both their differences and their higher levels of maturity may put them at risk for various social and emotional difficulties if their needs are not met.

Three major risks to the social and emotional development

- Issues deriving from their academic advancement as compared with their age peers and from unevenness in their development—asynchronous

- Common areas of psychological response to talents (including underachievement and perfectionism)

- Members of special groups, such as gifted students with learning disabilities, gifted females

(Neihart, Reis, Robinson and Moon, 2001)

One Category of Underachievement: 2E

Simply spoken, the gifted/LD (2E) student is a child who exhibits remarkable talents or strengths in some areas and disabling weaknesses in others.

Susan Baum

Joint Commision on 2E Education

- Twice exceptional learners are students with the potential for high achievement capability in areas such as specific academics; general intellectual ability; creativity, leadership; AND/OR visual, spatial, or performing arts

Joint Commision on 2E Education

- They show evidence of one or more disabilities as defined by federal or state eligibility criteria such as specific learning disabilities; speech and language disorders; emotional/behavioral disorders; physical disabilities; autism spectrum; or other health impairments such as ADHD

Joint Commision on 2E Education

- Identification of 2e students requires assessment in both areas—gifted and disability as one does not preclude the other. These students qualify for an individual education plan that must address both strengths and weaknesses.

- 2e students require differentiated instruction, accommodations, and or modifications, direct services, specialized instruction, acceleration options, and opportunities for talent development.

Recent publications
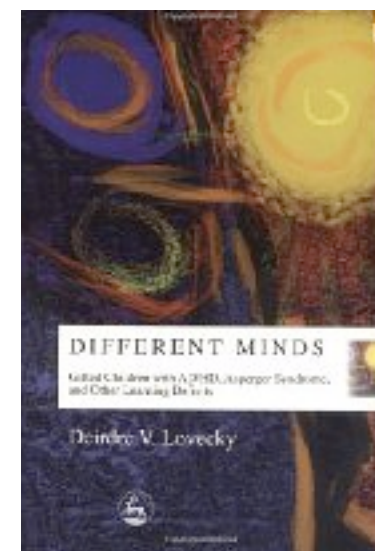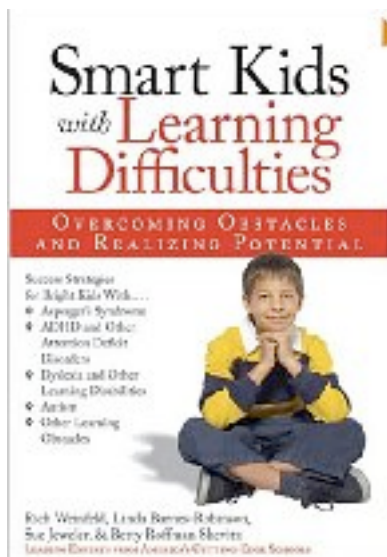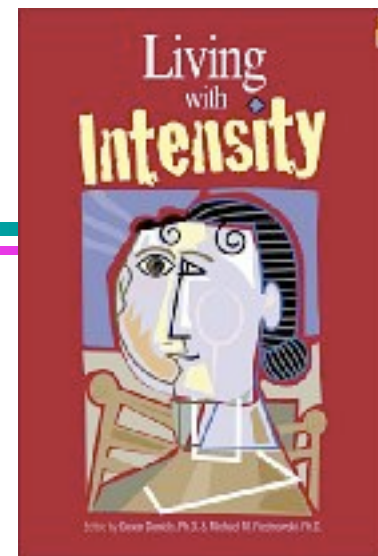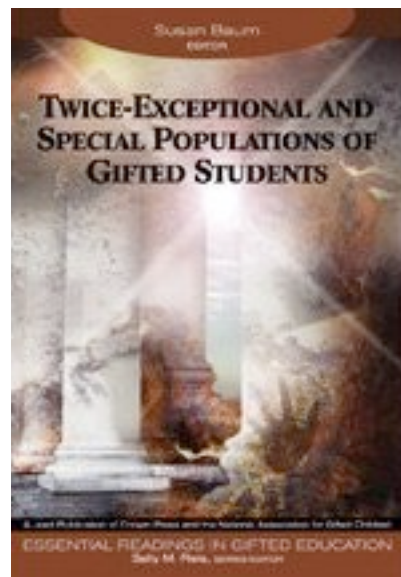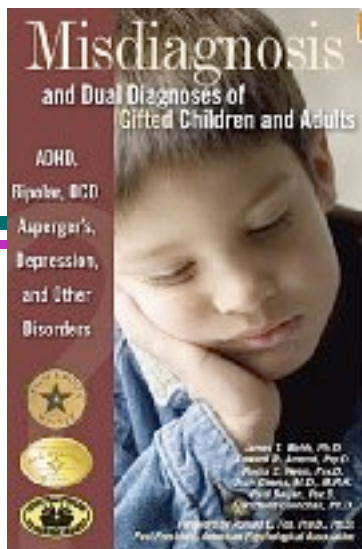
ONE SIZE DOES NOT FIT ALL

Our Research Conducted on Underachievement at NRC/GT

- Study of 45 academically talented students in a large, diverse high school

- Study lasted for 3 years--from freshman to senior year in all school classes, home and during all activities

- Half achieved at very high levels

- Half were underachieving

Case Studies of High Potential Students who either Achieved or Underachieved

Over a three year period, we spent over 180 days in all classes and every phase of the students' school day, both at school and in the community. We observed social, athletic, and academic interactions in a variety of settings such as athletic events, after-school clubs and at home with parents and siblings.

High Achieving Students

- Identified and enrolled in a gifted program
- Academic achievement at a superior level
- Nominated for the study
- Enrolled in college-bound, advanced classes
- Received awards and honors in high school
- Had friends who were high achievers

Underachieving Students

1. Identified and enrolled in a gifted program in elementary or middle school and superior academic achievement

2. Previously displayed consistently strong academic performance

3. Grade point average of 2.0 or lower

4. Consistently enrolled in non-college-bound or general classes

5. Dropped out or were truant during the study.
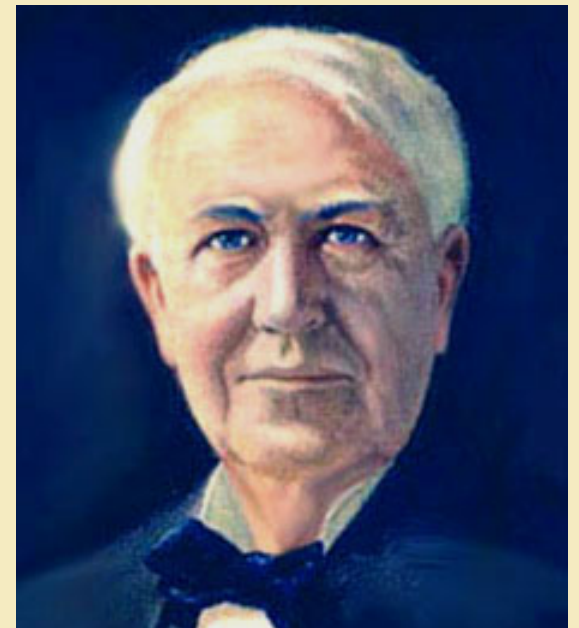
Factors Positively Influencing Achievement in High Ability Students

- Belief in self

- Personal characteristics (sensitivity, independence, determination to succeed, appreciation of cultural diversity, inner will, resilience)

- Support systems (network for high achieving students, family support, other supportive adults, supportive adults at south Central High School, Coach Brogan and the swim team)

- Participation in special programs, extra-curricular activities

- Challenging classes

- Realistic aspirations

Identity Shifting

Shifting self

One identity at home; another identity at school

One identity with neighborhood friends; another with academic peers

Gender differences

Girls: expected to be pretty, obedient, good daughters, good friends, and deferential

Boys: expected to be athletic, with different standards of behavior accepted or endured by parents and teachers

The Impact of teachers who cared and offered support

My teacher knew I was smart but having troubles. He knew that I could do it and he helped me get organized. He helped with a lot of organizational things—an assignment pad, zero every day without one, a journal. I flourished under him. Maybe it was because he allowed me to step back and grow a little bit, not academically, in the sense of my maturity. He expected me to meet to his expectations. I grew from this experience. He did this with all his students. To this day, everyone who goes back to visit him thanks him and ends up loving him.

The Importance of Peers

The high achieving students had periods of underachievement, but were supported in their achievement by a network of high achieving peers who refused to let their friends falter in school.

Achievement was like walking up a crowded staircase. If students started to underachieve and tried to turn and walk down the staircase, many other students pushed them back up the staircase. Once, however, the cycle of underachievement began and a student went down that crowded staircase, it was extremely difficult to turn around and climb back up.

Students who achieved in school acknowledged the importance of being grouped together in honors and advanced classes for academically talented students.

High Achieving Students

Involved in multiple extracurricular activities both after school—clubs, sports, exercise, student leadership
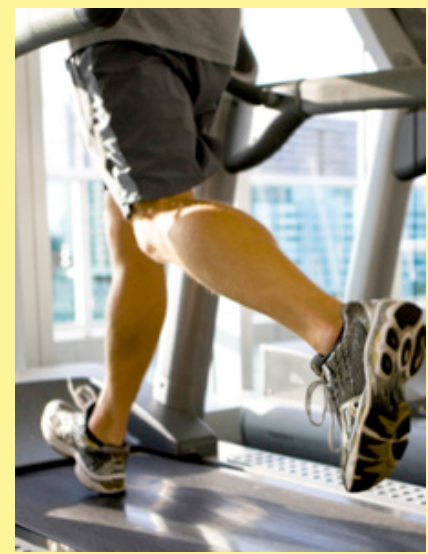
"*It is not impossibilities which fill us with the deepest despair, but possibilities which we have failed to realize.*"

— Robert Mallet

Personal Factors

- Self-regulation issues
- Problems with unstructured time
- Confusing or unrealistic aspirations
- Minimal perseverance and low self-efficacy

1st

Students who underachieved: spend time at home just watching TV, talking on the phone, listening to music, playing video games and doing nothing/hanging out for hours each day: DEAD TIME!!

The girls who underachieved almost all had serious boyfriends and their boyfriends were their first priority. Many spent hours with their boyfriends after school.

External Barriers Facing Talented Females

Click, Click, Click: The Formation of Attitudes and Opinions

- Television

- Print media.

-Environmental influences

-Stereotypes in home, school, and life

Second Shift

- Unequal division of work.

-Watching mothers do work at home.

The Interaction of External and Internal Barriers

Internal Barriers Facing Talented Females

- Am I Superwoman or Why can't I Do It All?

- Creation of a Sense of Self and a Feminine Identity Redefining Achievement

- The Development of Self-Efficacy and Resilience

- Multipotentiality

2nd

Family Factors

Family Factors Affecting Academic Underachievement

- Difficult relations with some family members

- Problems with siblings and sibling rivalry

- Inconsistent family role models and values

- Minimal parental academic monitoring, guidance, and expectations

3rd

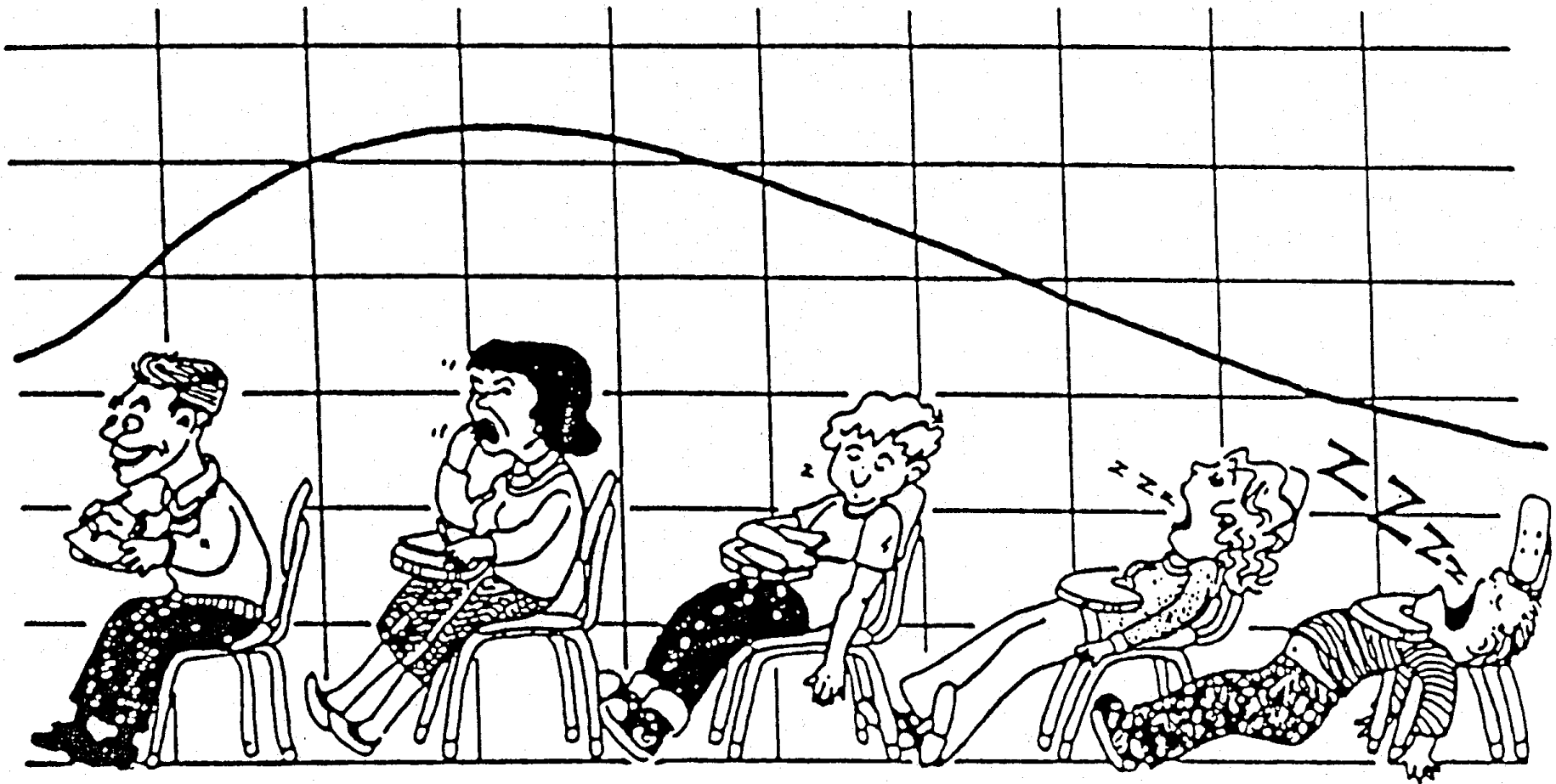## Environmental Factors

Environmental Factors

- School environmental issues--not cool to be smart
- City environment--not conducive to academic growth
- Home environment— lack of self-regulation and discipline—he does homework each night

4
School Factors
th

A "BELL CURVE" SEATING CHART.

From *Get Off My Brain*, by Randy McCutcheon, illustrated by Pete Wagner

# School Factors Influencing the Academic Underachievement of High Ability Students

- Inappropriate early curricular experiences in elementary school
- Absence of opportunity to develop appropriate school work habits
- Negative interactions with teachers
- Unrewarding curriculum in middle and high school
- Questionable counseling experiences

I never learned how to work

All of the students said the same thing over and over again.

"Elementary school and middle school were so easy for me and I never learned how to study."

"I coasted through elementary and middle school and then fell apart in the advanced classes in my high school."
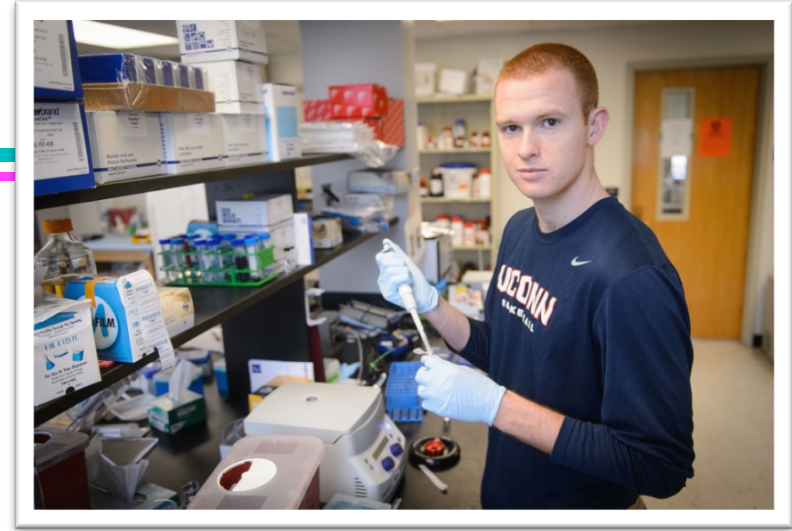
Curriculum Compacting

- Identify students' strengths

- Eliminate work they have already mastered

- Substitute more appropriately challenging work, based on interests when possible

INDIVIDUAL EDUCATIONAL PROGRAMMING GUIDE
The Compactor

Prepared by: Joseph S. Renzulli
Linda M. Smith

NAME_____   AGE_____   TEACHER(S) _____   Individual Conference Dates And Persons
Participating in Planning Of IEP

SCHOOL _____   GRADE_____   PARENT(S) _____   _____   _____   _____   _____

CURRICULUM AREAS TO BE CONSIDERED FOR COMPACTING Provide a brief description of basic material to be covered during this marking period and the assessment information or evidence that suggests the need for compacting.	PROCEDURES FOR COMPACTING BASIC MATERIAL Describe activities that will be used to guarantee proficiency in basic curricular areas.	ACCELERATION AND/OR ENRICHMENT ACTIVITIES Describe activities that will be used to provide advanced level learning experiences in each area of the regular curriculum.
# Name it.	# Prove it.	# Change it.
What material needs to be covered?	Exactly what material is to be excluded?	What enrichment and/or acceleration activities will be included?
What evidence shows a need for compacting?	How will you prove mastery?	Independent Study Acceleration
		Mini-courses Honors Courses
		College Courses Mentorships
		Small Group Investigations
		Work Study

☐ Check here if additional information is recorded on the reverse side.

"*First grade would be all right if it weren't for the 11 sequels.*"

Research on the Effectiveness of Compacting

Approximately 40-50% of traditional classroom material could be eliminated for gifted students. When teachers eliminated as much as 50% of the curriculum, no differences were found between treatment and control groups in most content areas. In fact, students whose curriculum was compacted scored higher than control group students in some content areas.
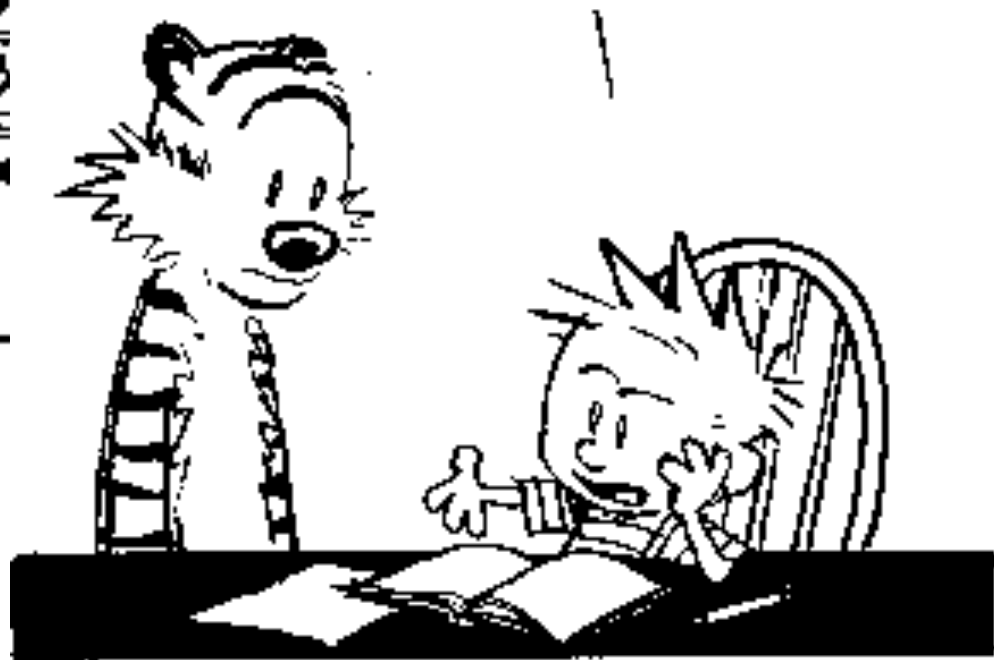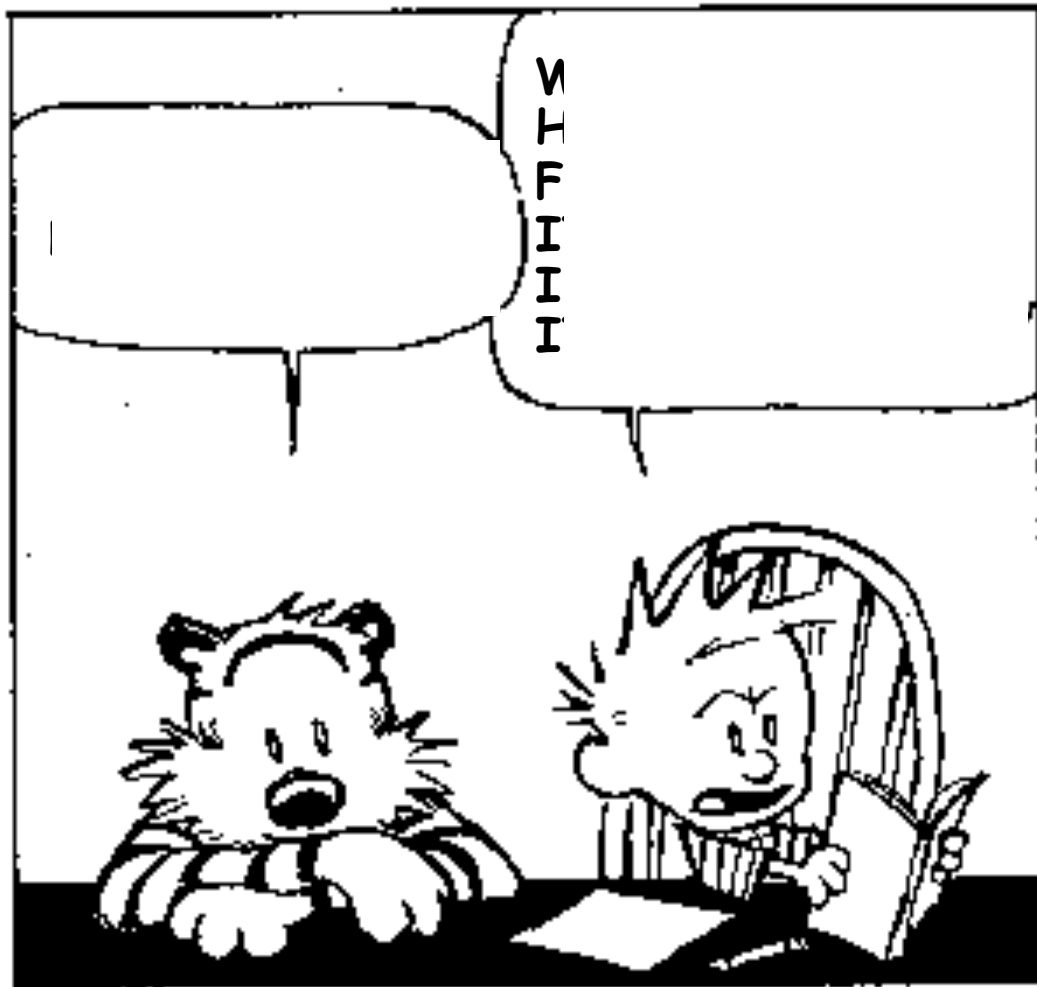
Work Left Undone

Choices & Compromises of Talented Females

Sally Morgan Reis

Gifted girls

Girls may excel in school

- **More valedictorians**

- **More graduate from college, but**

- **Fewer gifted women than men excel in professional accomplishments in life**

- **School success does not translate into life success**

- Of the world's 1.3 billion poor people, nearly 70% are women.

- Of the world's nearly 1 billion illiterate adults, two-thirds are women.

- Women make up less than 13 percent of the world's parliaments, and less than 10 percent of political party leaders.

- Only 20 women currently serve as heads of state (presidents) of their government.

- Of all 193 diplomats to the UN, only 30 are women, a record high of 15 percent.

- Less than 8% of all members of the United States Academy of Sciences are women.

- To date, only 43 women have been awarded a Nobel Prize, out of 862 people and organizations who have been named laureates. (A total of 44 prizes have been awarded to women: Marie Curie won twice.)

Men win more awards in the arts and humanities.

Men write more books, publish more articles, and excel in almost all professional areas

Of all Pulitzer Prize winners—from 1917 to 2015, only 113 of the 814 were women.

From 1809 to 2000, only 1 in 1,000 patents granted has been issued to a female inventor. Why are over 90 percent of all US patents are held by men?

● Female musicians are drastically underrepresented in major orchestras of the world.

• In the 27 highest budgeted orchestras in the United States, there are no female musical directors or conductors in permanent positions.

External Barriers Facing Talented Females

External events that influence creative development

- Zeitgeist

- Role model availability.

- The generation of a set of philosophical beliefs essential to the development of creative potential.

- The ability to overcome stereotypes.

- The knowledge that creative contributions take time.

Internal Barriers Facing Talented Females

- Am I Superwoman or Why can't I Do It All?
- Creation of a Sense of Self and a Feminine Identity Redefining Achievement
- The Development of Self-Efficacy and Resilience
- Multipotentiality

Findings About Underachievement from our research

1. Underachievement often begins in elementary school, usually because of an unchallenging curriculum.

2. Increasing episodes of underachievement produce a more chronic, regular pattern.

3. Peers can play a major role in keeping underachievement from occurring in their closest friends.

4. Belief in self can help to avoid underachievement.

5. Gender differences exist as boys underachieve in school, while girls underachieve in work pursuits in life.

Summary of Current Findings About Underachievement

6. Busier adolescents underachieve less.

7. Students with regular patterns of work in music or athletics developing positive self-regulation strategies in academics.

8. A caring adult in school can help reverse the process of underachievement.

9. Curriculum changes are needed.

10. Too few research-based interventions have been tried to reverse underachievement.

Interventions Discussed in the Research about Underachieving Students

1. **Counseling Interventions (individual/ group/family)**
2. **Curriculum/Classroom Modifications (full-time classes, part-time classes)**
3. **Combination of counseling and school intervention (Rimm, 1989, 1995)**
4. **Interest-based Projects (Type III Intervention SEM) (Baum, Hebert, Renzulli, 1996)**
5. **Self-Reversal (Without formal programs) (Emerick, 1992) Out of school interests and activities**
6. **UConn Research Team interventions**

Andrew

Small-town boy makes it big

* Transition to college

* Big fish, little pond

* Doesn't believe in his own ability

Opportunities

Resources

Encouragement

Self-Regulated Learning

Zimmerman (1989) defines self-regulated learning as involving the regulation of three general aspects of academic learning.

First, self-regulation of ***behavior***
- active control of various resources students have available-such as time, study environment-where they study
- use of peers and faculty members to help

Second, self-regulation of ***motivation and affect***
- controlling and changing motivational beliefs such as self-efficacy and goal orientation
- controlling emotions and affect in ways that improve learning.

Third, self-regulation of **cognition**
- control of various cognitive strategies for learning such as the use of deep processing strategies for better learning and increased performance.

Self-Regulation Strategies for the NRC/GT Study

- Setting Short and Long Term Goals
- Identifying Rewards for Work Completed and Goals Met
- Time Management/Organization Strategies
- Study and Learning Strategies (Flash cards, testing yourself, finding the right environment, chunking study time over several days)
- Test-taking Strategies (Comparing class notes with material from the book, meeting with friends to brainstorm questions, arranging time with teachers for review)
- Developing an Individual Plan to Be More Successful in School
- Reflecting on What Has Occurred and Evaluating Progress

Although there are many possible explanations for why talented students fail to achieve, lack of effort and engagement in learning are the most likely reasons that we have identified in our

Walt Disney was fired by a newspaper editor because "he had no good ideas." He went on to create Mickey Mouse, Donald Duck, the Disney Studios, Disneyland; his greatest dream, EPCOT Center opened in 1982.

Thomas Edison's teachers called him "too stupid to learn." He made 3,000 mistakes on his way to inventing the light bulb. Eventually he held 1,093 patents.
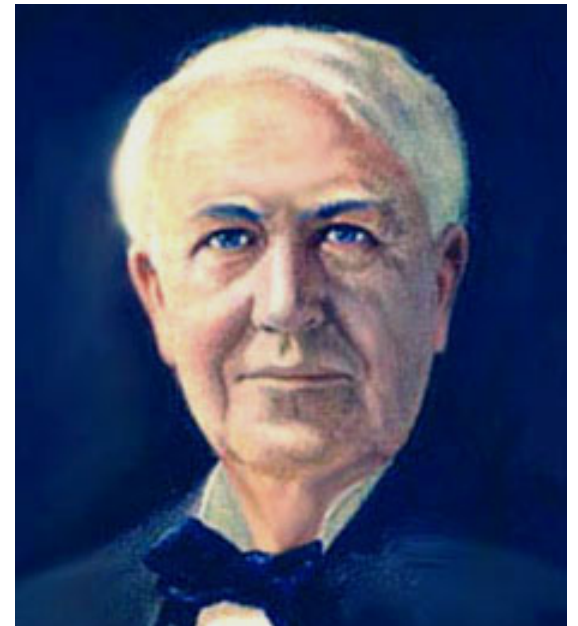
Louisa May Alcott was told by an editor that she would never write anything popular. More than a century later, her novels are still being read, and the Children's Literature Association (an international group of librarians, teachers, authors, and publishers) considers *Little Women* on the the best American children's books of the past 200 years.

CHAPTER I

PLAYING PILGRIMS

"CHRISTMAS won't be Christmas without any presents," grumbled Jo, lying on the rug.

"It's so dreadful to be poor!" sighed Meg, looking down at her old dress.

"I don't think it's fair for some girls to have plenty of pretty things, and other girls nothing at all," added little Amy, with an injured sniff.

"We've got father and mother and each other," said Beth contentedly, from her corner.

The four young faces on which the firelight shone brightened at the cheerful words, but darkened again as Jo said sadly,—

"We haven't got father, and shall not have him for a long time." She didn't say "perhaps never," but each silently added it, thinking of father far away, where the fighting was.

Nobody spoke for a minute; then Meg said in an altered tone,—

"You know the reason mother proposed not having any presents this Christmas was because it is going to be a hard winter for every one; and she thinks we ought not to spend money for pleasure, when our men are suffering so in the army. We can't do much, but we can make our little sacrifices, and ought to do it gladly. But I am afraid I don't." And Meg shook her head, as she thought regretfully of all the pretty things she wanted.

"But I don't think the little we should spend would do any good. We've each got a dollar, and the army wouldn't be much helped by our giving that. I agree not to expect anything from mother or you, but I do want to buy Undine and Sintram for myself; I've wanted it *so* long," said Jo, who was a bookworm.

3

Abraham Lincoln started out as a captain at the beginning of the Blackhawk War; by the end of the war, he had been demoted to private.

Failed in business in 1831.

Defeated for Legislature in 1832.

Second failure in business in 1833.

Suffered nervous breakdown in 1836.
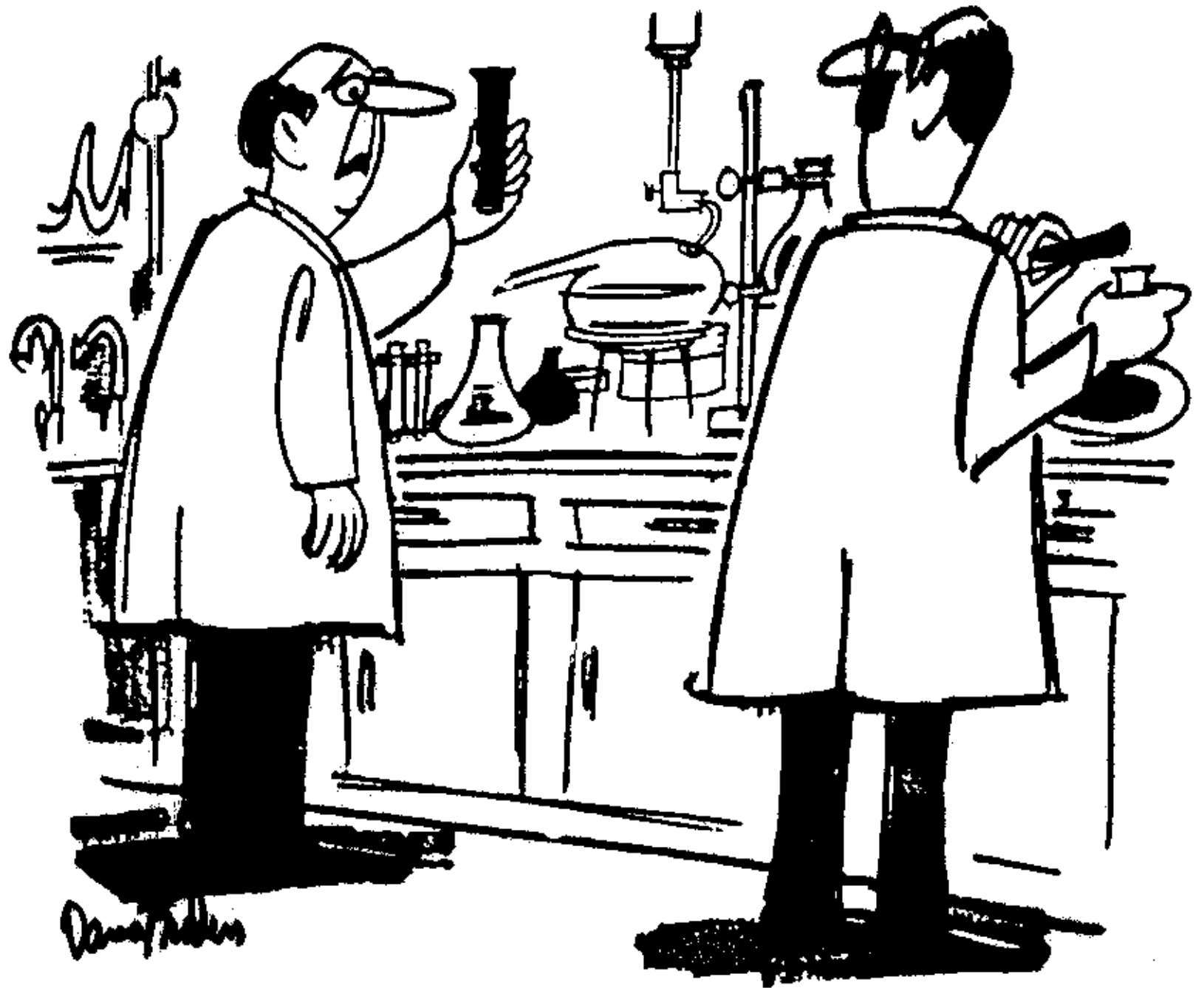
Defeated for Speaker in 1838.

Defeated for Elector in 1840.
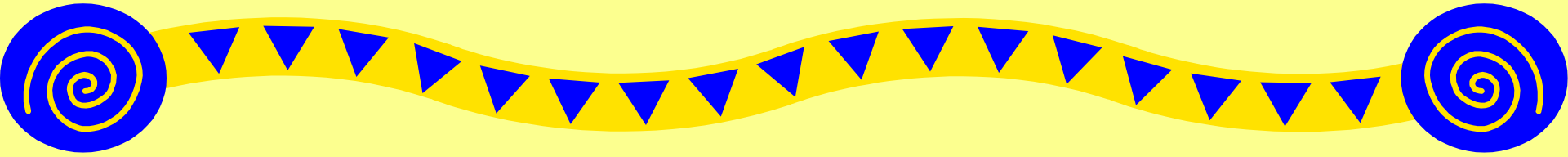
Defeated for Congress in 1848.

Defeated for Vice President in 1856.

Defeated for Senate in 1858.

Elected President in 1860.

"What's the opposite of "Eureka!"?"

It's never too late to be what you might have been.

— George Eliot

Look in my face,

My name is might

have been.

— Dante Gabriel Rossett

Learning Differences in High Potential Children

- Aptitude and Ability
- Achievement
- Academic background—poor preparation and limited exposure
- Cultural—second language acquisition, interaction style differences
- Affect (enthusiasm level and personality)
- Effort (effort vs. ability issues)
- Styles of learning style (visual, auditory, concrete, hands-on)
- Interests
- Product and processes
- Self-regulation and study skills

Individual Factors that affect Underachievement

- ✦ Personal Effort
- ✦ Motivation
- ✦ Learning Disabilities
- ✦ Goal Orientation
- ✦ Self-efficacy
- ✦ Age
- ✦ Family Dysfunction/Lack of Support
- ✦ Gender