

# The Ethical and Practical Connotations of Tracking Effort and Achievement in Modern Education

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## Abstract

*This document aims to look at the existing literature surrounding effort and achievement in the modern education system as well as the effects that tracking may have on students. This document will also cover factors such as conscious and unconscious bias in teachers, socioeconomic factors and the potential ethical concerns of tracking a student's effort and the possible effects on a student's psyche.*

## I. Introduction

The tracking of achievement and effort is by no means a new concept. Students have been tested and their achievement and effort graded for several decades. Methods of assessment vary from country to country and have, naturally, changed over the years (such as the shift from O levels to GCSE in the UK in 1987). However, it is a relatively recent concept that the act of grading a students' achievement or attempting to grade their effort and assess effort criteria such as "preparedness" and "willingness" could possibly damage a student's perception of both themselves and the worth of their effort entirely with most papers being written in the late 90s and beyond.

## II. Effort and Achievement

When discussing this subject it is important to define effort. William Carbonaro defines effort as "the amount of time and energy that students expend in meeting the formal academic requirements established by their teacher and/or school"(Carbonaro, 2005, p.3), a definition that I believe encompasses the entirety of effort as *defined in the education system*. Carbonaro also posits that there are "3 different kinds of effort". Rule-oriented, procedural and intellectual. (Carbonaro, 2005, p.3). It is also important to outline the difference between perceived effort

and actual effort. What a student perceives as a high level of effort may be perceived as a low level of effort by their teacher (and of course vice versa).

The first point to discuss is the correlation between effort and achievement. When tracking a student's effort are we directly implying a correlation between achievement? Perhaps more importantly does student motivation also play a role in determining achievement? A study conducted by Steven Wise and Lingyun Gao found that "national differences in mean achievement scores may be influenced by differences in student motivation" (Wise and Gao, p. 2, 2017). This correlates with a statement by William Carbonaro stating "it is important to emphasize how the concept of effort differs from that of engagement". This is pertinent because if it can be proved that tracking a student's effort and achievement influences their motivation then it can be further surmised that the same tracking is also impacting their achievement.

## III. Ethical Connotations of Tracking

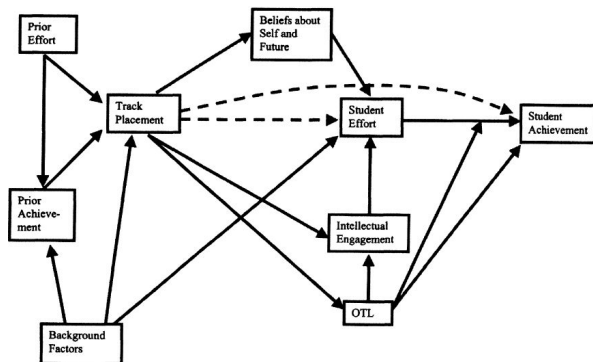
With the above points made we can continue to investigate the possible effects of tracking on students and why it may or may not be ethical to track students or to show them their achievement and effort scores. For some students, being able to see their grade slipping may be a catalyst for self-improvement whereas for another student it may allow self-doubt to form and cause them to become disheartened. According to Carol Brown "a student's beliefs about their abilities and expectations for success are a strong predictor of grades (in maths)" (Brown, 2018, p. 2). While this statement talks only about maths a reasonable case could be made for other subjects as the psychology of self-belief is applicable to all areas in life.

"Using the estimated model, we have shown that the effects of tracking are heterogeneous across students with different prior test scores. In response

to the exogenous changes in peer composition under a ban on tracking, schools on average increase their effort inputs for all students” (Fu and Mehta, 2018, p. 39). This statement highlights something that no other literature I reviewed discussed, parental influence and effect on achievement and effort.

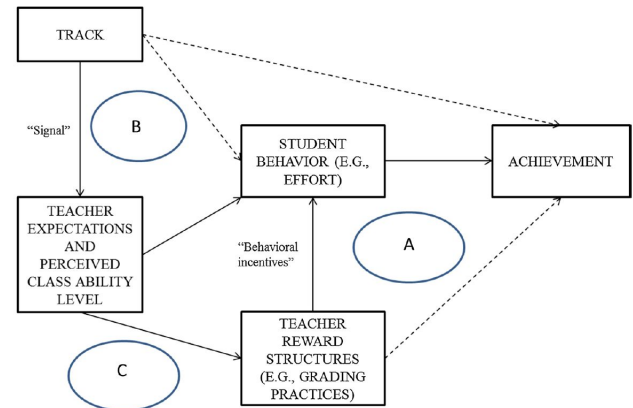
#### IV. Modelling Achievement and Effort Relationships

Three models are posited by different authors for conceptual models of relationships among effort, achievement, tracking and other factors such as socioeconomic status and prior achievement and effort. Each has merit by themselves however I believe that by forming a combination of the three with an in-depth look into each factor a more meaningful insight into the effects of tracking could be gleaned.



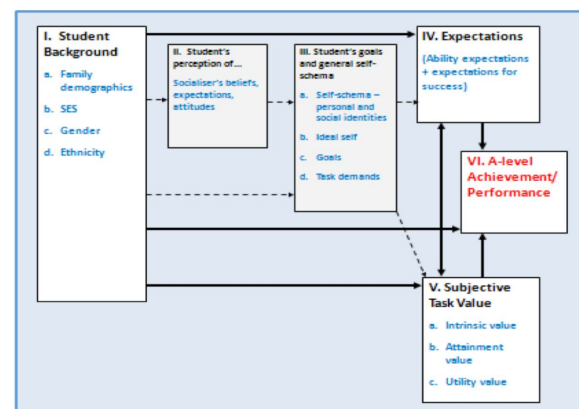
Above: Conceptual Model for Understanding the Relationship Among Effort, Tracking, and Achievement (Carbonaro, 2005, p.5)

Carbonaro's simplistic directional graphic gives a sense of the one-way nature of the cause and effect of pertinent factors. It is interesting to note that prior achievement plays a large role here, feeding into track placement which of course then feeds into student effort and self-belief. I believe this model to be the most accurate representation of what I would expect to see which is surprising as this diagram is the oldest (2005).



Above: Conceptual Model of the relationship between student track placement, teacher expectations and reward structures, and student's behaviour and achievement (Anderson, 2018, p.4)

Anderson's conceptual model focuses much more heavily on "in-school" factors with no reference to prior achievement nor to external, uncontrollable variables such as race, sex, socioeconomic standing or special education needs. This model doesn't draw upon the myriad factors that influence our younger generation's effort and achievement



Above: An expectancy-value model of A level achievement (adapted from Eccles, 2007) (Brown, 2018, p. 2)

Brown's model is significantly more in-depth on the points it does make and also brings attention to background factors affecting students as well as self-perception, perceptions of work and also makes reference to self-schema. I believe this

model would be excellent when paired with Carbonaro's aforementioned work

### **V. The Goal Attainment Scale**

A common theme in the literature above is tracking and its effect (whether that be referred to as reward structures, subjective task value or student effort/achievement). A method proposed by Lee Ann Jung, referred to as "Goal Attainment Scaling" proposes that instead of fixed assessment wherein there is a single goalpost and all students must reach that or fail instead each student has a personal goal which can be moved on a scale that all students can see. In the words of the author "Goal attainment scaling offers educators a way to communicate clearly both what is expected and at what level a student is performing on any learning or behavior goal" (Jung, 2018, p. 3). A system like this is essential in schools as it allows for goal scaling and flexibility without assigning a student an achievement grade that looks worse than another student. This also allows students to see progress they are making at a more granular level which allows for better introspection and self-improvement.

### **VI. Conclusion**

In conclusion I believe the current literature I have discussed to be exceptionally insightful. Meaningful future work would involve testing the impact of the Goal Attainment Scale outline in Lee Ann Jung's work against traditional achievement tracking methods as well as studying the impact of achievement tracking on a student's psyche and sense of motivation to see if a better means of tracking could be achieved. One that doesn't risk negatively impacting a student's sense of self-worth but also provides much needed insight into a student's progression in our education system.

### **A. References**

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