

# ON THE CUTTING EDGE

## Academic Intrinsic Motivation and Educational Competence by Adele Eskeles Gottfried, Ph.D.

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Academic intrinsic motivation (AIM)—that is, the enjoyment of school learning characterized by mastery orientation, curiosity, persistence, task-involvement, and learning of challenging, difficult, and novel tasks (Gottfried, 1985)—is based on principles of cognitive discrepancy, competence and mastery, and attribution. Regarding cognitive discrepancy, children are likely to have higher AIM when exposed to novel experiences that create curiosity and a desire to learn. Regarding competence and mastery, AIM increases when children perceive themselves as autonomous, have effective interactions with others, and have noticeable outcomes on the environment. Attribution concerns the impact of extrinsic consequences on AIM. When children receive extrinsic rewards for learning, their AIM tends to be lower (Gottfried, Fleming, & Gottfried, 1994; Gottfried, Marcoulides, Gottfried, & Oliver, 2009). Because extrinsic consequences are external to learning, children may perceive being engaged in learning to receive the reward rather than for the enjoyment of learning itself.

To enable teachers, educators, psychologists, and researchers to assess AIM, a reliable and valid instrument was developed: the Children's Academic Intrinsic Motivation Inventory (CAIMI, Gottfried, 1986). The CAIMI measures AIM in subject areas (reading, math, social studies, and science) and for school in general. Originally developed for upper elementary and middle school children, the CAIMI was extended to primary (Young Children's Academic Intrinsic Motivation Inventory [YCAIMI]; Gottfried, 1990) and high school students (Children's Academic Intrinsic Motivation Inventory—High School [CAIMI-HS]; Gottfried, Fleming, & Gottfried, 2001). Additionally, the CAIMI can be used for counseling, instructional planning, and evaluation, as well as to identify motivation in gifted learners.

AIM relates to educational competence across standardized achievement test scores, report card grades, perceptions of academic competence, academic anxiety, taking advanced high school courses particularly in math and science, science career aspirations, leadership, and educational attainment in adulthood. Students with higher AIM are likely to have higher achievement, view their educational competence more favorably, have lower academic anxiety, enroll in challenging high school courses, be more interested in science careers, attain bachelor's degrees, and be leaders in high school and adulthood (e.g., Gottfried et al., 2013; Gottfried, Preston, Gottfried, Oliver, Delany, & Ibrahim, 2016; Gottfried, Schlackman, Gottfried, & Boutin-Martinez, 2015).

Because students tend to become less intrinsically motivated and AIM becomes more stable as students get older, providing early experiences to develop strong AIM is essential (e.g., Gottfried, Nylund-Gibson, Gottfried, Morovati, & Gonzalez, 2016). When parents and teachers nurture cognitive enrichment, curiosity, mastery, and provide intrinsic experiences rather than extrinsic rewards (e.g., Gottfried et al., 2016), AIM is enhanced. AIM should be fostered conjointly by both teachers and parents to maximize students' educational competence.

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## Children's Academic Intrinsic Motivation Inventory Instruments

Children's Academic Intrinsic Motivation Inventory (CAIMI) (Gottfried, 1986, [www.parinc.com](http://www.parinc.com))  
Young Children's Academic Intrinsic Motivation Inventory (Y-CAIMI) (Gottfried, 1990)  
Children's Academic Intrinsic Motivation Inventory--High School (CAIMI--HS) (Gottfried et al., 2001)

For full intrinsic motivation bibliography of publications, please contact  
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