

# **Growth Approaches to Academic Motivation, Engagement, and Achievement: Recent Findings and Practice Relevant to Growth Mindset and Growth Goals**

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# **GROWTH APPROACHES AND THEORY**

# Theory: Mindset

- Recent theorising about ‘growth mindsets’ (Dweck, 2012) articulates the adaptive effects of ‘incremental’ beliefs about intelligence.
- Individuals with an incremental view (i.e. a growth mindset) see academic and non-academic outcomes as something that can be addressed through cognitive, emotional, and/or behavioural modification.
- In contrast, individuals holding an ‘entity’ view see their competence as fixed and difficult to address, leading to less inclination to make psycho-behavioural adjustments.
- Research has identified the role of incremental beliefs on students’ academic trajectories through school (Blackwell et al., 2007).

# Theory: Goal Theory

- Goal theory is another perspective relevant to the study of growth (Elliot, 2005).
- At its most fundamental level, goal theory is underpinned by:
  - performance goals (aiming to outperform others and demonstrate comparative competence)
  - mastery goals (aiming to understand, develop skill, and improve) (Elliot, 2005).
- It has been suggested that growth goals may represent an adaptive blend of mastery and performance goals (Martin, 2006c, 2011c; Martin & Liem, 2010).
- Specifically, growth goals may reflect a mastery orientation because they are self-referenced and self-improvement based and yet hold a sufficient element of performance orientation in that the student is competitive, but with his or her own previous performance.

# Theory: Goal-setting Theory

- Goal-setting theory (e.g. Locke & Latham, 2002) provides useful insights into the mechanisms by which growth (PB) goals may positively impact educational outcomes.
  - Growth goals make it clear to a student what they need to strive for to outperform a previous best.
  - Growth goals help a student direct attention and effort towards the goal-relevant tasks that are important to attain educational outcomes.
- Through self-competition, growth goals may energise the student.
- Growth goals create a dissonance between current and desired attainment and the student is then motivated to close this gap (Martin, 2011c).

# Theory: Self-determination Theory (SDT)

- Self-determination theory (SDT; Ryan & Deci, 2000) differentiates motivation in terms of its intrinsic and extrinsic elements.
- Intrinsic motivation is linked with a desire for personal challenge among students and this notion of personal challenge is centrally related to the concept of PB (and other growth) goals (Deci, Schwartz, Sheinman, & Ryan, 1981; La Guardia & Ryan, 2002).
- As noted by Collie and colleagues (2014), a core feature of PB goals is that they are determined by students, about themselves, and for themselves and thus align well with concepts and principles under SDT.
- Indeed, recent theorizing seeking to integrate goal and SDT theories has suggested that the self-based (growth) goals (that are akin to PB goals) espoused by the new 3 x 2 goal framework (Elliot et al., 2011) are quite aligned with the autonomous motivation of SDT (Vansteenkiste et al., 2014)

# Theory: Self-concordance Model

- The self-concordance model (Sheldon & Elliot, 1999) also attends to the self-determined nature of individuals' goals.
- This model proposes that the consistency between goals and the individual's interests and core values has significant implications for goal striving, goal attainment, and well-being outcomes.
- Self-concordant goals are those that are integrated with the self. This has positive effects on well-being via the intrinsic and self-determined nature of self-concordant goals and the internal locus of control that these goals entail (Sheldon & Elliot, 1999).
- In contrast, externally-set or referenced goals tend not to align with individuals' enduring interests and values and thus lack the volitional strength that self-concordant goals possess (Sheldon & Elliot, 1999).
- A PB target is a goal target set by the student as is the means by which he/she strives towards that target. To the extent that this is the case, there may be adaptive self-concordance in PB goals.

# **GROWTH APPROACHES**

## **AND (our)**

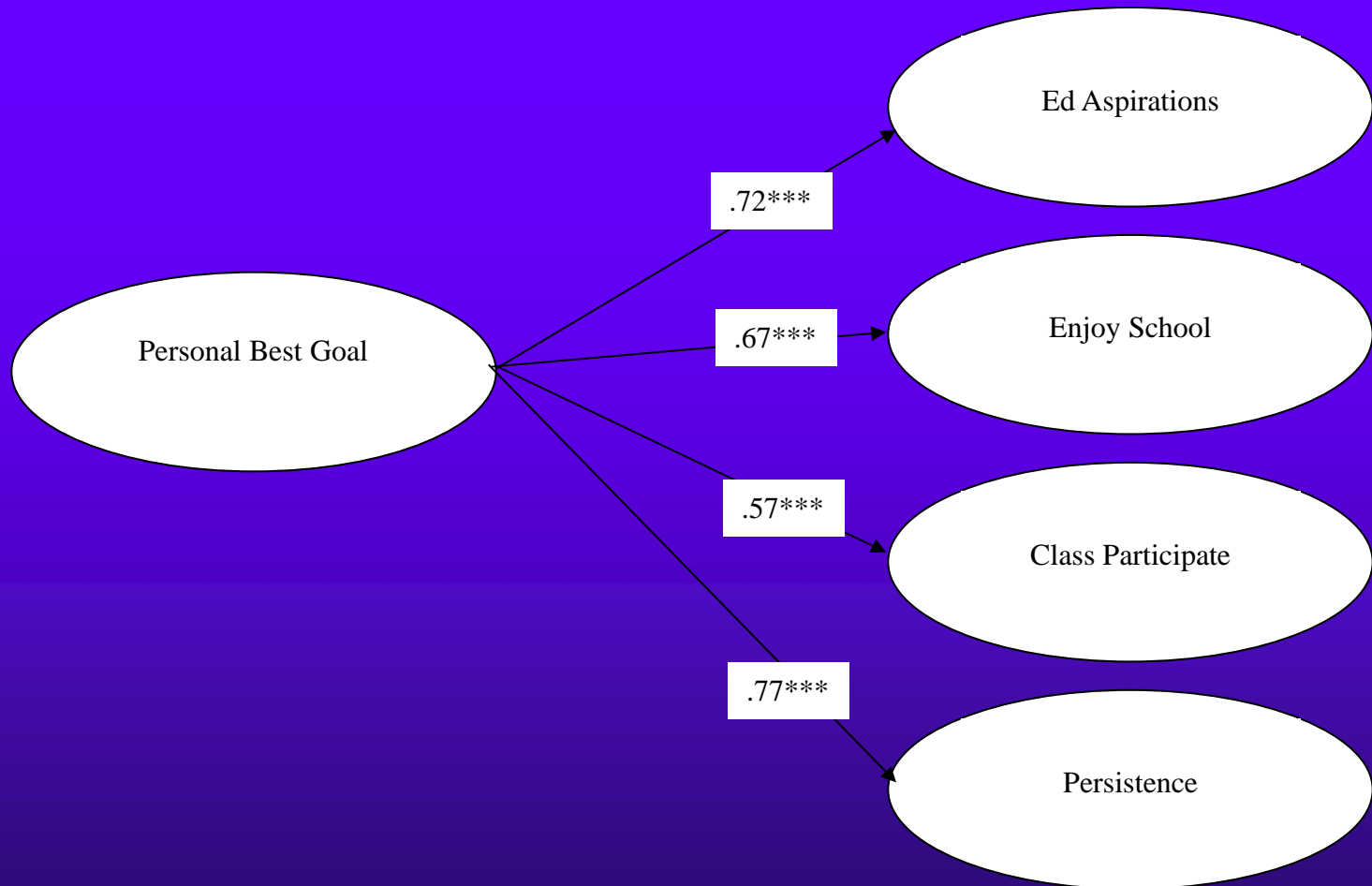
# **RESEARCH**



# PB Goals – Early cross-sectional research

- PB goals predicting engagement

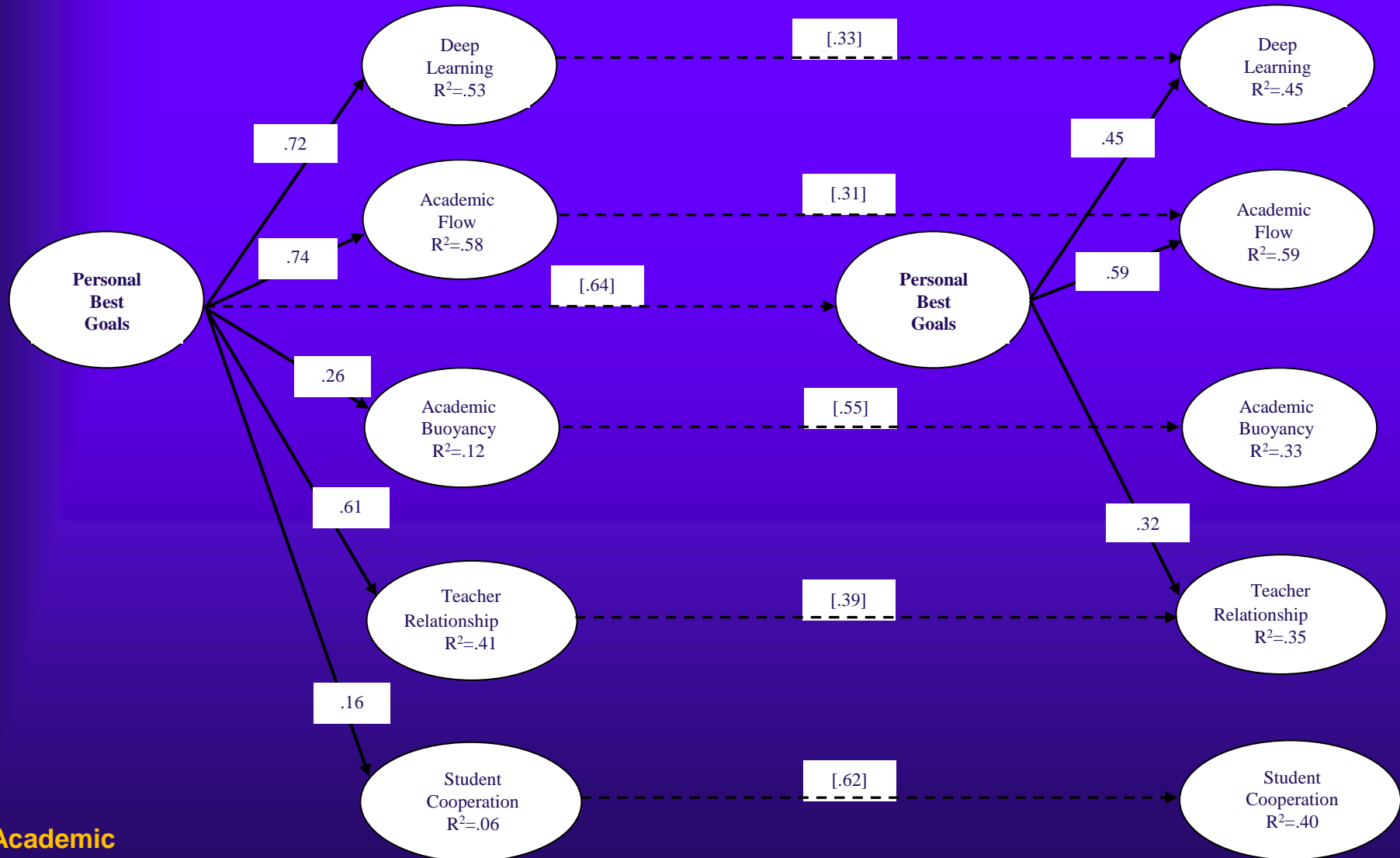
# PB Goals Research



# PB Goals – Longitudinal Extension

- Role of PB goals after controlling for prior variance in outcome variables

# PB Goals Research



# PB Goals – Longitudinal Extension

- Role of PB goals after controlling for prior variance in outcome variables and shared variance with mastery and performance goals

# PB Goals and 'Classic' Goals

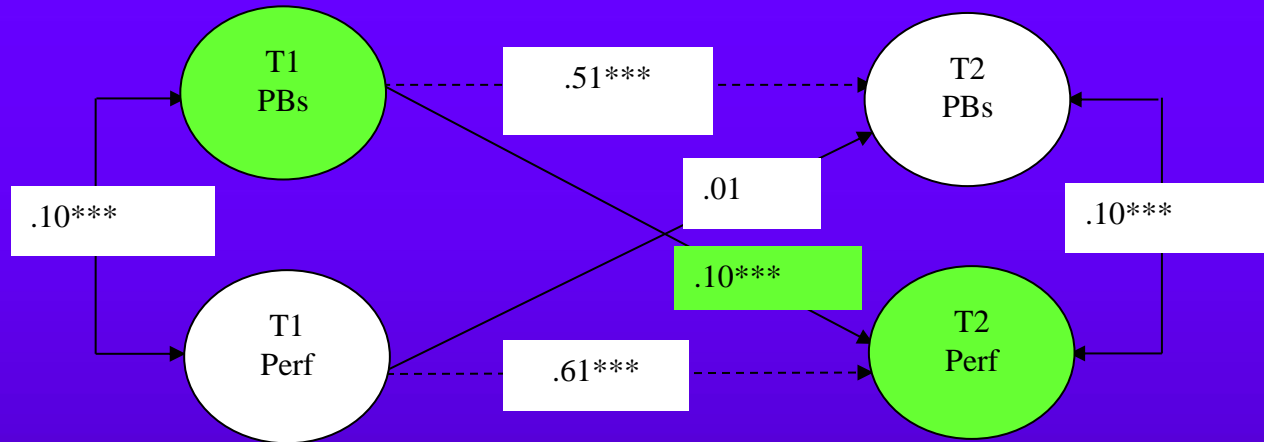
## SEM Betas: 2011 Motivation and Engagement Gains / Declines

	Self-efficacy	Value	Learn focus	Plan	Task manage	Persist	Anxiety	Fail avoid	Low control	Self-handicap	Disengage
2010 Mastery Goals	.21*	.13*	.15*	.07*	.12*	.16*	.02	-.08*	-.08*	-.09*	-.14*
2010 Perform Goals	.03	.03	.03	.01	.01	.06*	.03	.03	-.01	-.01	-.05
2010 PB Goals	.18*	.13*	.15*	.10*	.15*	.15*	.07*	-.12*	-.07*	-.09*	-.15*

# PB Goals – Longitudinal Extension

- Cross-lagged panel design of PB goals and numeracy

# PB Goals Research



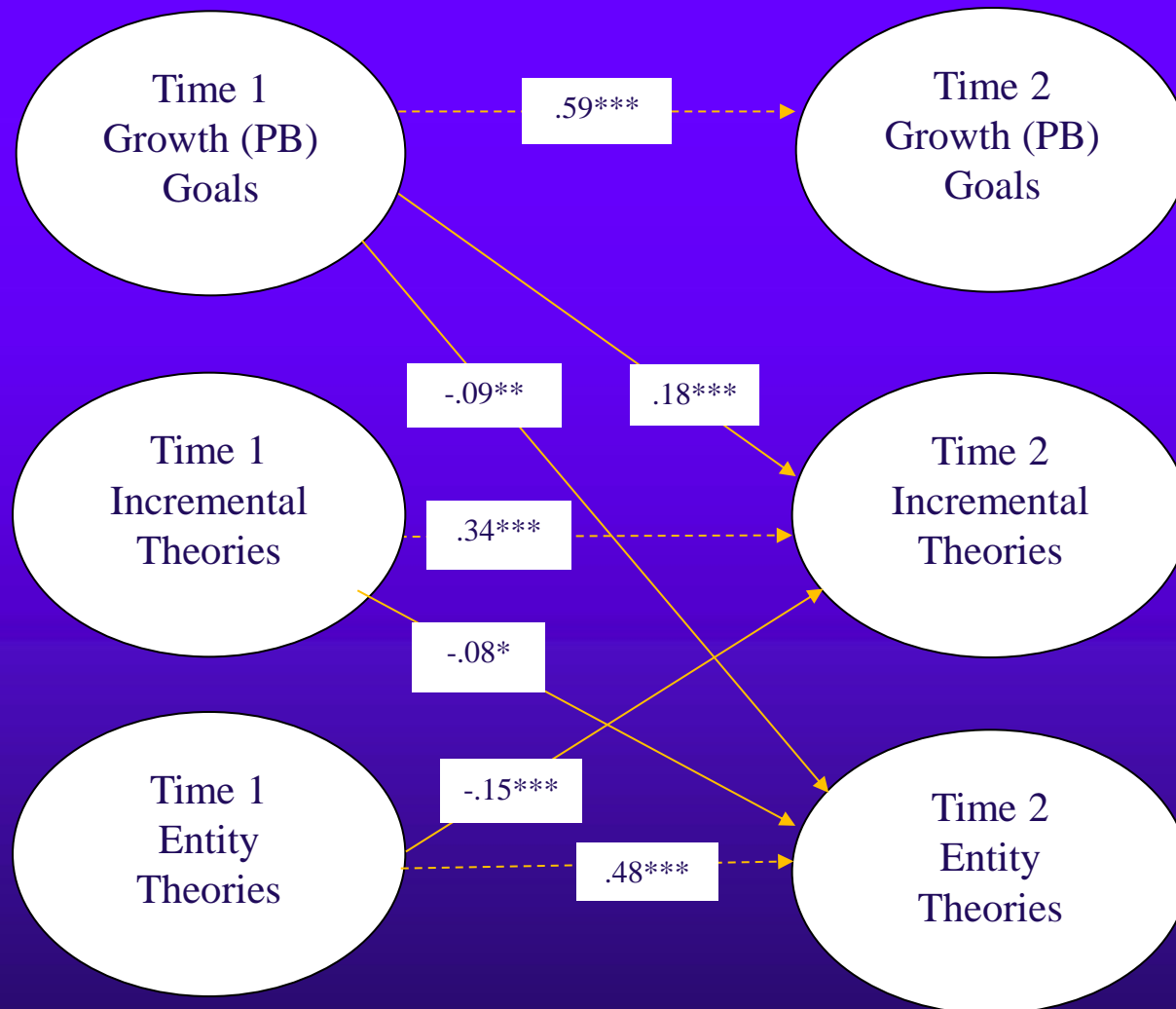
*PBs and NUMERACY PERFORMANCE*



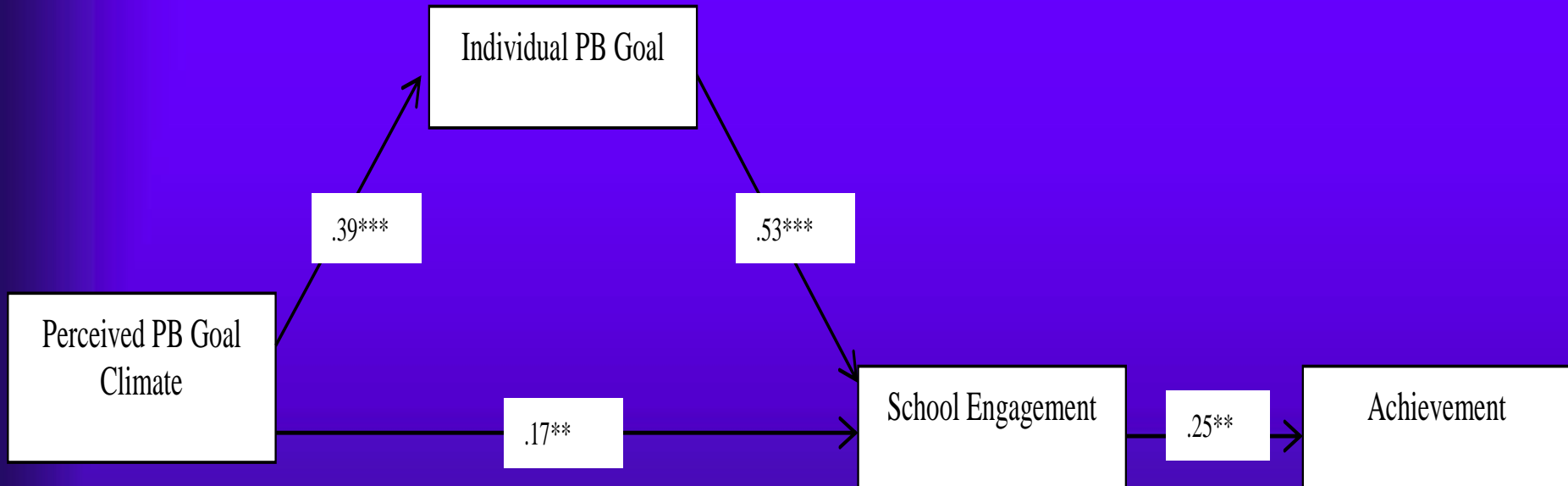
# PB Goals – Longitudinal Extension

- Cross-lagged panel design of PB goals and implicit beliefs about intelligence

# PB Goals and Implicit Beliefs



# Personal Best Goal Climate



# PB Goals and At-Risk Students

- PB (Growth) Goals must be shown to benefit all student groups (first do no harm!)
- Eg. Important to show yield for those with at-risk students

# PB Goals and At-Risk Students

	<u>PB Goals Correlated with ....</u>						
	Literacy	Numeracy	Homework Comple tion	Class Particip ation	Future Plans	Persist	Disengage
ADHD (N=87)	.34 (12%)	.24 (6%)	.52 (27%)	.50 (25%)	.69 (48%)	.66 (44%)	-.57 (33%)
Non- ADHD (N=3200)	.16 (3%)	.16 (3%)	.43 (19%)	.50 (25%)	.58 (34%)	.59 (35%)	-.52 (27%)

(% Explained Variance between PBs and Factor)

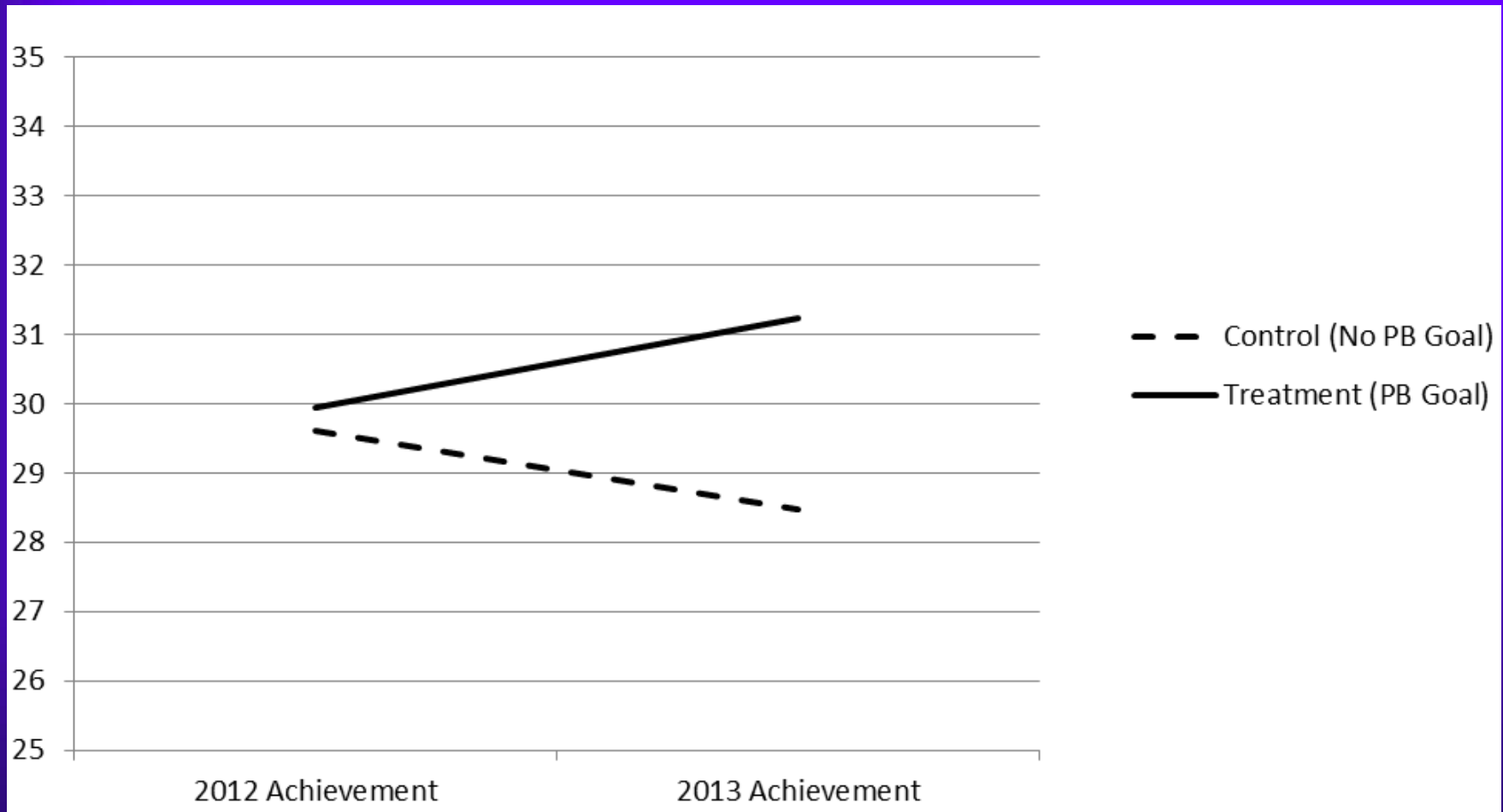
# PB Goal Setting: Achievement Growth

- Study of 97 students doing international Maths test 2012 and 2013
- Half assigned to a group asked to set a PB Goal/Target for upcoming Maths 2013 (Treatment group).
- Half assigned to a no goal group (Control group).

# PB Goal Setting

- Does the Treatment (PB goal) group do better in Maths 2013 than the Control (no goal) group?
- Finding:
  - ANCOVA:  $F(1,87) = 8.09, p < .01$
  - PTO

# PB Goal Setting

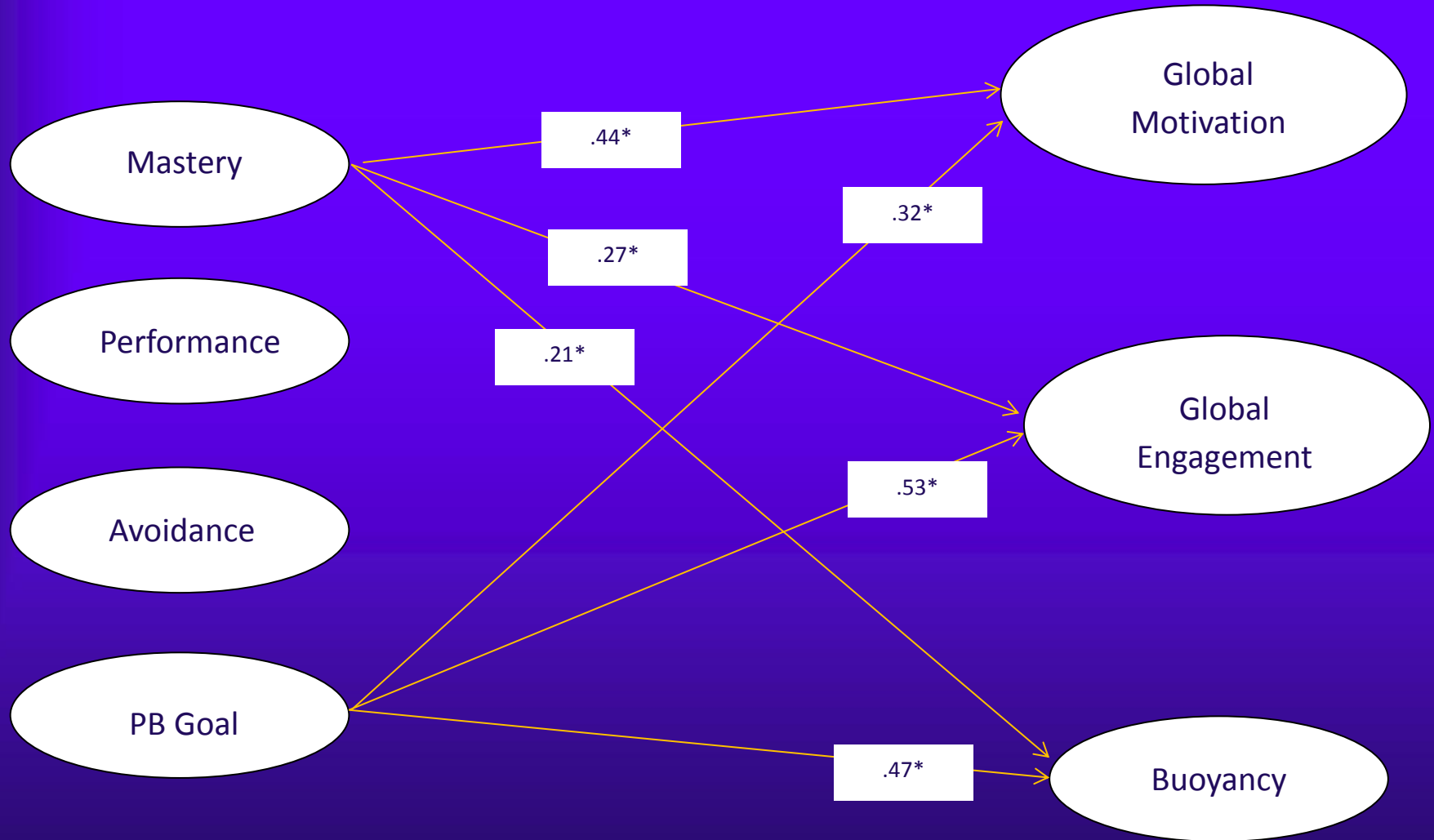




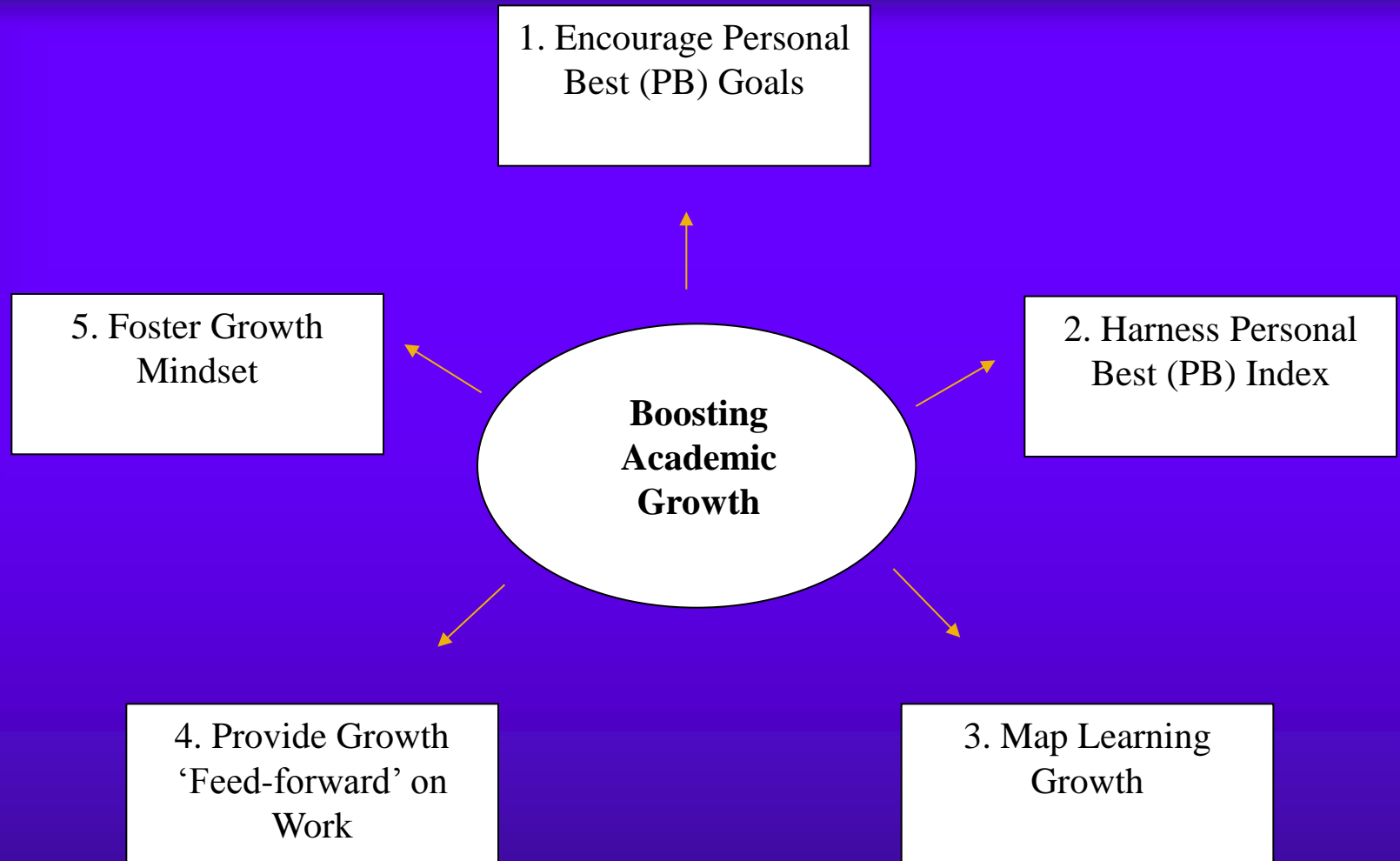
# International PB Goals Research

- How do PB Goals perform in collectivist cultures that are also educationally ambitious?
- The role of PB goals in Chinese students' motivation, engagement, and academic buoyancy.

# International PB Goals Research



# **GROWTH APPROACHES AND PRACTICE**



**Student and Teacher Tools:**

**[www.lifelongachievement.com](http://www.lifelongachievement.com)**

**(Download Corner on homepage)**

# Where To From Here?



# Special Issue on Academic Growth

## *British Journal of Educational Psychology (2015)*

(Martin, Guest Editor)

- Dweck
- Locke
- Elliot
- Parker, Marsh et al
- Anderman
- Mok

# Student and Teacher Practical Resources:

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(Go to Download Corner on  
Homepage)



# THANK YOU

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