



Optimizing Students' Outcomes:

**The Roles of Learning Intentions, Goal-Setting, Feed-back,
Feed-forward, and Tests**

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**Professor Andrew J. Martin
Educational Psychology Research Group
School of Education
University of New South Wales, Australia**



Learning Intentions

Learning Intentions

- ◆ What do I want students to know?
 - knowledge intentions
- ◆ What do I want students to understand?
 - understanding intentions
- ◆ What do I want students to be able to do?
 - skill intentions



Working towards Learning Intentions



Goal Setting

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Goal Striving

See:

Martin, A.J. (2011). Personal best (PB) approaches to academic development: Implications for motivation and assessment. *Educational Practice and Theory*, 33, 93-99.

<https://www.researchgate.net/publication/272213054>

Goals

- Teach students how to set goals
- Goal-setting Worksheet in Attachment A
 - In Hong Kong Worksheets at Download Corner on homepage of www.lifelongachievement.com



Feed-back and Feed-forward (from Teacher to Student)



Feed-back and Feed-forward

- Learning Index**

- Feed-forward Assignment Sheets**

Learning Index

- Score students' learning progress
- Sample Learning Index in Attachment B
 - In Hong Kong Worksheets at Download Corner on homepage of www.lifelongachievement.com

Feed-forward Assignment Sheets

- Use Assignment/Project Cover Sheets effectively
- Sample Cover Sheet in Attachment C
 - In Hong Kong Worksheets at Download Corner on homepage of www.lifelongachievement.com



Feed-back and Feed-forward (from Student to Teacher)

- the role of tests

See:

Martin, A.J. (2015). Are these testing times? Or is it a time to test? Further considering the place of tests in students' academic development. In H. Proctor., P. Brownlee., & P. Freebody (Eds). *Controversies in education: Orthodoxy and heresy in policy and practice*. Dordrecht: Springer <https://www.researchgate.net/publication/281156337>

Tests and Student Outcomes

Achievement

- Testing in a subject area at least once per term can increase achievement (Bangert-Drowns et al., 1991)
- The longer test-and-feedback process is in place through the term/year, the more effective it becomes in assisting achievement (Kim, 2005)

Tests and Student Outcomes

Retention and Transfer

- Repeated testing with feedback results in greater long-term retention than repeated, spaced study (Butler, 2009)
- Tests that require effortful retrieval of information (eg. short-answer) promote better retention than tests that require recognition (eg. multi-choice) (Larsen et al., 2008)
- Effortful retrieval of information (short-answer test) improves recall one month later (compared with no test) (Butler & Roediger, 2007)

Tests and Student Outcomes



“We encourage educators to incorporate testing into their regular classroom routine: The amount of class time sacrificed for a quiz is small compared to gain in retention of material” (Butler & Roediger, 2007)

Tests and Positive Outcomes: Why?



- Tests make clear the learning intentions (Hattie, 2009)
- Tests make success criteria more specific and transparent (Hattie, 2009)
- Data from tests very specific to pinpoint teaching intervention (Fuchs & Fuchs, 1986)
- Feedback helps students to correct errors and confirm correct answers (Larsen et al., 2008)
- Effortful recall (eg. short-answer rather than multi-choice) binds material to cognitive structure (Larsen et al., 2008)
- More frequent testing can help lower test anxiety (Leeming, 2002)
- Testing can help increase the regularity of study (Leeming, 2002)

Tests and Positive Outcomes: Why?

- Positive effect of testing very much a function of the feedback/information it can provide teacher AND student (Hattie, 2009)
- Positive effects of tests increase when accompanied by feedback (Gocmen, 2003)

“When teachers seek, or at least are open to, feedback from students as to what students know, what they understand, where they make errors, when they have misconceptions, when they are not engaged – then teaching and learning can be synchronized and powerful” (Hattie, 2009, p. 173)

Student outcomes are “effective if there is feedback from the tests to teachers such that they modify their instruction to attend to the strengths and gaps in student performance” (Hattie, 2009, p. 178)



THANK YOU