

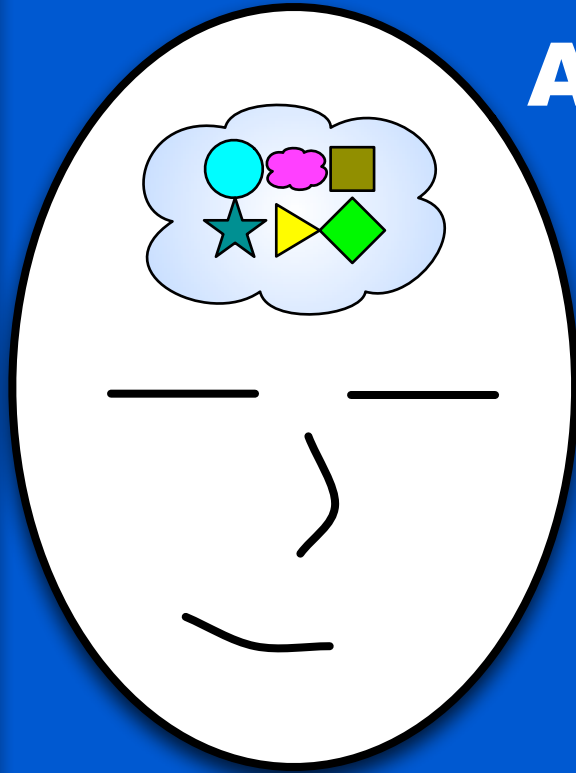
STRATEGIES TO PROMOTE SELF-DIRECTED LEARNING

JUNE 23, 2009

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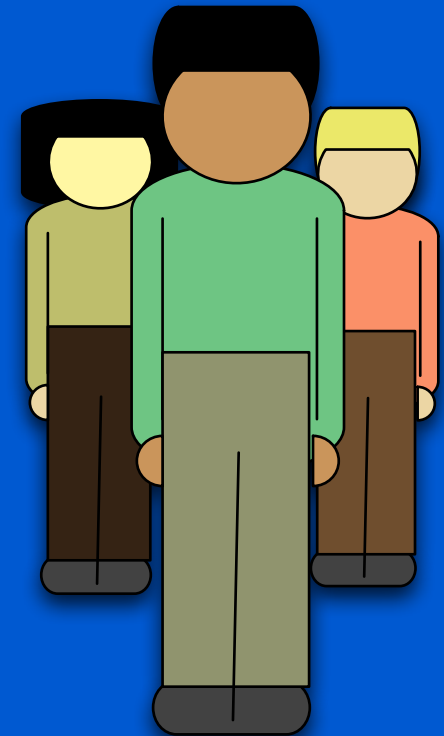
AS TEACHERS, WE ASSUME



- WE KNOW CONTENT & HOW TO TEST IT
- WE KNOW SUCCESS WHEN WE SEE IT

**BUT WE'VE INTERNALIZED THE
LEARNING FROM HAVING TO TEACH IT**

HAVE THEY??



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A PRIVATE UNIVERSE

(video excerpt)

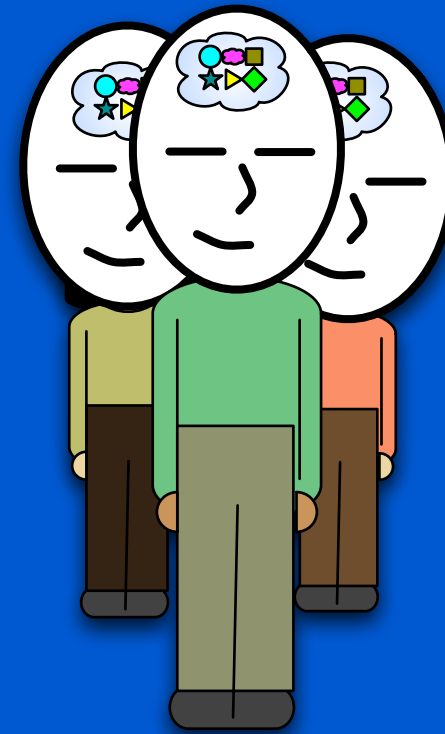
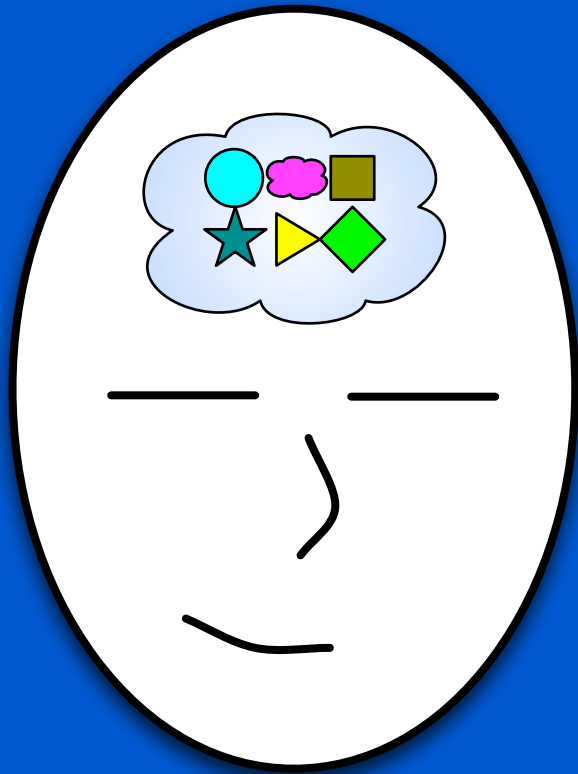


OUR MOST
SUCCESSFUL
STUDENTS MAY NOT
HAVE **INTERNALIZED**
WHAT THEY
"LEARNED"

Produced by the Harvard-Smithsonian Center for Astrophysics. 1987.
<http://www.learner.org/resources/series28.html>

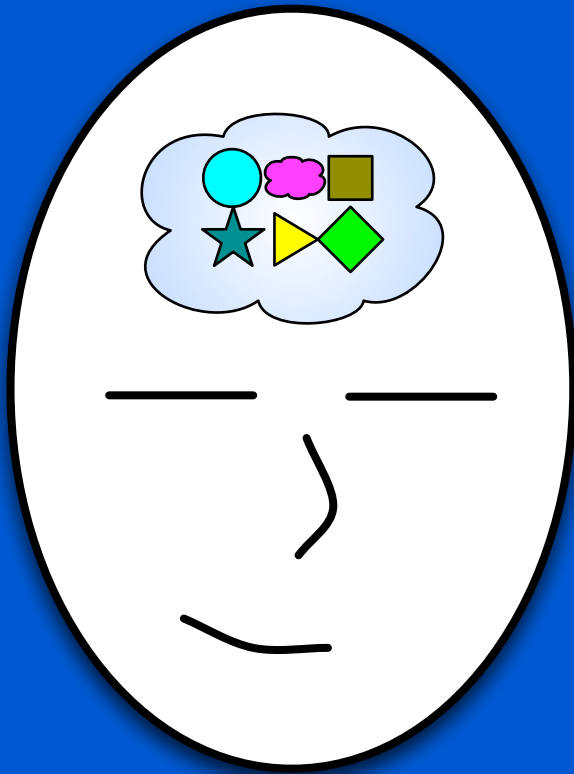
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WE CAN'T MAKE THEM INTO US



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WE CAN'T MAKE THEM INTO US



**BUT WE CAN ENCOURAGE OR DISCOURAGE THE
SKILLS NEEDED TO **INTERNALIZE** THE LEARNING**

**AND WE CAN MAKE EXPLICIT
THE **PROCESS** OF LEARNING**

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To create illusions is to engage in disinformation design, to corrupt optical information, to deceive the audience. thus the strategies of magic suggest what not to do if our goal is truth-telling rather than illusion-making.

photo credit: pyramis on Flickr
<http://www.flickr.com/photos/mindmob/313845896/>

-EDWARD TUFTE
VISUAL EXPLANATIONS

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MAGIC - THE OPPOSITE OF TEACHING



David Copperfield Illusion DVD 2000

**DON'T TELL THEM
WHAT YOU'RE
DOING OR WHY**

**CONTEXT IS
CONTRIVED OR
NONEXISTENT**

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Several of the classic texts of magic advocate two primary principles for successful illusion-making, suppressing context and preventing reflective analysis.

[...]

These techniques of disinformation design, when reversed, reinforce strategies of presentation used by good teachers.

-EDWARD TUFTE
VISUAL EXPLANATIONS

SELF-DIRECTION

HOW DO WE ENCOURAGE THE SKILLS
NEEDED TO **INTERNALIZE** THE
LEARNING AND MAKE EXPLICIT THE
PROCESS OF LEARNING?

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The ability to set goals related to learning, plan for the achievement of those goals, independently manage time and effort, and independently assess the quality of learning as well as the products that result from the learning experience.

**DEFINITION OF SELF-DIRECTION
FROM METIRI.COM**

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SELF-DIRECTION PROMOTERS

GRADE BASED ON PROGRESS AND EFFORT

OPPORTUNITIES TO REWORK

**ATTRIBUTE SUCCESS AND FAILURE TO
THINGS THE STUDENT HAS CONTROL OVER**

SCAFFOLDING

AUTHENTIC LEARNING

FROM METIRI.COM

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WHAT DOES THE RESEARCH SAY?

Robbins, Lauver, Le, Davis, Langley & Carlstrom, "Do Psychosocial and Study Skill Factors Predict College Outcomes? A Meta-Analysis" (Psychological Bulletin, Vol. 130, No. 2, 2004)

Barron, Harackiewicz & Tauer, "The Interplay of Ability and Motivational Variables over Time: A 5 Year Longitudinal Study of Predicting College Student Success" (Paper presented at the Annual Meeting of the American Educational Research Association April 10-14, 2001)

Blackwell, Trzesniewski & Dweck, "Implicit theories of Intelligence Predict achievement Across an Adolescent Transition: A Longitudinal Study and an Intervention" (Child Development, Jan-Feb 2007)

[The essay they used]

[An NPR interview with Carol Dweck]

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WHAT DOES THE RESEARCH SAY?

Robbins
Goals-setting, self-efficacy & academic skills had a significant effect on retention in college

Self-efficacy & achievement motivation had a significant effect on GPA in college

Barron, Harackiewicz & Tauer
Motivational Variants of the Theory of Ability and
of Deep Learning
Annals of the American Educational Research Association
Success" (Paper presented at the
Association April 10-14, 2001)

Goal-setting is a significant predictor of GPA in college

Math grades of 7th graders who believed that intelligence can be "grown" trended upward. Those that believed intelligence is fixed trended flat or downward

Explicit theories of intelligence
An intervention based on helping students to realize that intelligence can be "grown" reversed the downward trend.

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That is not how children learn things. They have to live with an idea or insight for a while, turn it around in some part of their minds, before they can, in a very real sense, discover it, say "I see," take possession of the idea, and make it their own - and unless they do this, the idea will never be more than surface, parrot learning, and they will never really be able to make use of it.

- JOHN HOLT
LEARNING ALL THE TIME

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Here are two children, trying to learn, say, long division. One child gets it at the first crack. [...] At the end of the marking period, he gets an A. The other child has a hard struggle. [...] Only after many failures does he finally catch on. But he does, and at the end of the marking period he too does a perfect paper. (continued...)

- JOHN HOLT

WHAT DO I DO MONDAY?

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In a class where daily grades are averaged in, his perfect final paper will be averaged against all the failures he made while he was learning, and he will be given a low or perhaps even failing mark. This is idiotic, unfair, outrageous. The aim of the class is to learn long division, not to have a contest to see who can learn it in the fewest number of tries.

- JOHN HOLT

WHAT DO I DO MONDAY?

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SELF-DIRECTION PROMOTERS

GRADE BASED ON PROGRESS AND EFFORT

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Upon the playground, in game and sport, social organization takes place spontaneously and inevitably. There is something to do, some activity to be carried on, requiring natural divisions of labor, selection of leaders and followers, mutual cooperation and emulation. In the schoolroom the motive and the cement of social organization are alike wanting.

- JOHN DEWEY

THE SCHOOL AND SOCIETY

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There is no obvious social motive for the acquirement of mere learning, there is no clear social gain in success thereat. Indeed, almost the only measure for success is a competitive one, in the bad sense of that term [...] So thoroughly is this the prevalent atmosphere that for one child to help another in his task has become a school crime.

- JOHN DEWEY
THE SCHOOL AND SOCIETY

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Verbal memory can be trained in committing tasks, a certain discipline of the reasoning powers can be acquired through lessons in science and mathematics; but, after all, this is somewhat remote and shadowy compared with the training of attention and of judgment that is acquired in having to do things with a real motive behind and a real outcome ahead.

- JOHN DEWEY

THE CHILD AND THE CURRICULUM

I was an ingenious and resourceful teacher, clever about thinking up lesson plans and demonstrations and motivating devices[...] And I only very slowly and painfully --- believe me, painfully --- learned that when I started teaching less, the children started learning more.

- JOHN HOLT
LEARNING ALL THE TIME

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That is not to say that children must discover everything unaided. We can help them in several ways. We can so arrange the materials before them that discovery is made more likely. Real learning is a process of discovery, and if we want it to happen, we must create the kinds of conditions in which discoveries are made.

- JOHN HOLT
LEARNING ALL THE TIME

Teaching as engineering learning environments

- DYLAN WILIAM

PLENARY ADDRESS TO NSTA CONVENTION
ON SCIENCE ASSESSMENT

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SELF-DIRECTION - WHAT CAN YOU DO?

YOU CAN START SMALL

**TALK A PROJECT YOUR STUDENTS
ALREADY DO & ADD A SELF-DIRECTED
COMPONENT**

[resources linked at mrmont.com > teachers > Self-Direction]

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SELF-DIRECTION INHIBITORS

FAILURE LINKED TO INTELLIGENCE

ASSIGNING LOW QUALITY WORK

EQUATING EASY WITH SMART

**REWARDING STATUS
(HURTS BOTH TOP AND BOTTOM)**

**PRAISING INTELLIGENCE INSTEAD
OF PROGRESS AND EFFORT**

FROM METIRI.COM

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A system that places so much emphasis on grades and shows so little concern for students' academic needs.

- DENISE POPE

[DESCRIPTION OF PUBLIC EDUCATION
DOING SCHOOL

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An implicit assumption in an educational system is that only a few will succeed.

- DENISE POPE
DOING SCHOOL

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An "A" grade did not necessarily mean that the students learned [...] Or that they understood important concepts or theory; rather it proved that students were adept at providing teachers with the information required on tests and quizzes, and that they memorized these facts and figures (or copied them from their peers) just long enough to ace the exams and then move on to the next set of tasks.

- DENISE POPE
DOING SCHOOL

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Taking time to reflect and engage material would only slow students down and adversely affect grades

- DENISE POPE
DOING SCHOOL

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But what often happens to kids in school is that they are required to repeat, as sense, what makes no sense to them, to the point where they give up trying to reconcile what people say about the world with what they really feel about it. They accept as true whatever authority says is true. They do not try to check or test it. They soon forget even how to test it.

- JOHN HOLT
LEARNING ALL THE TIME

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Teachers enter the profession to enlighten students but end up facing the grade trap where fostering students' engagement was subsumed by a need to cover the material, to get students to pass exams, and to find efficient ways to compensate for overbearing workloads.

- DENISE POPE
DOING SCHOOL

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DO SCHOOLS KILL CREATIVITY?

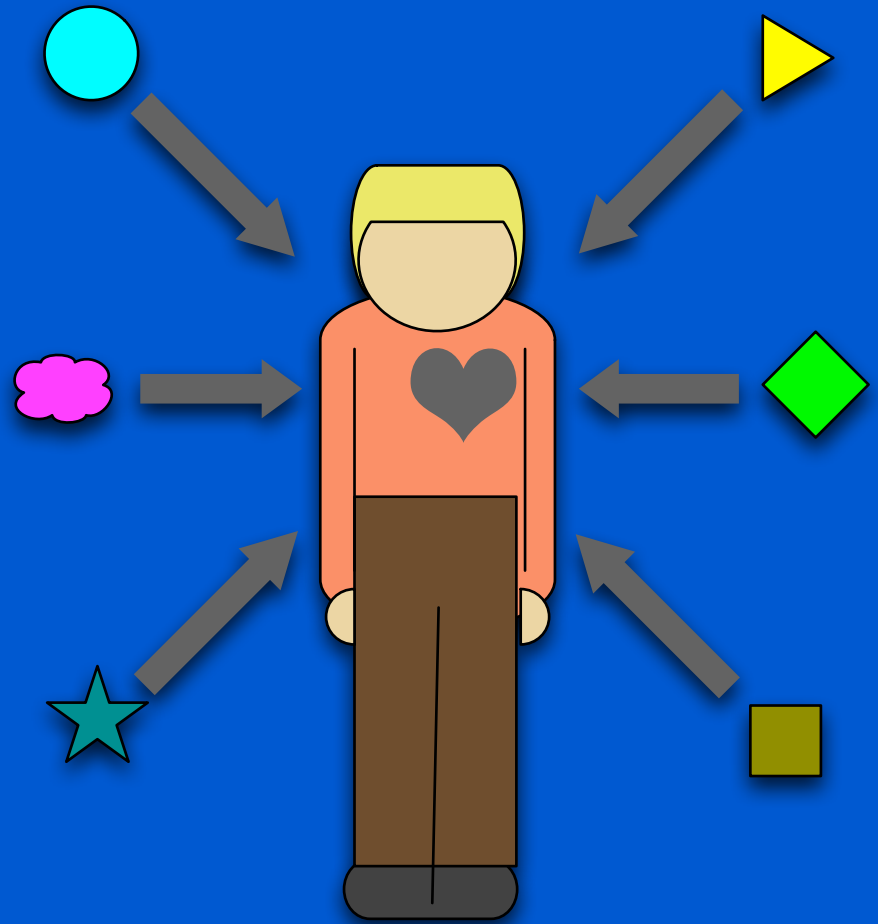
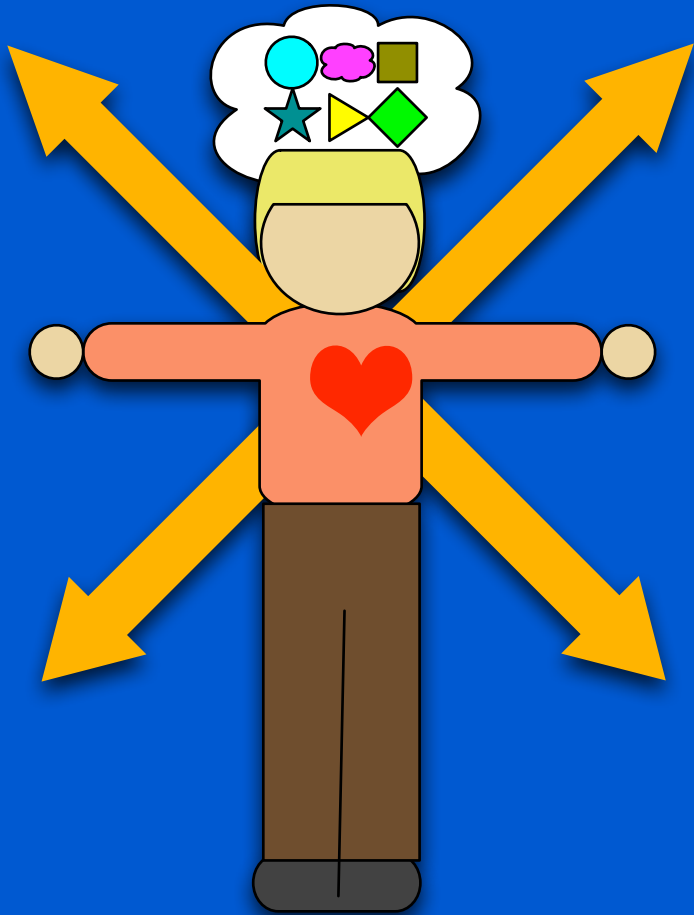


Sir Ken Robinson, speaking at the TED conference in 2006
[http://www.ted.com/index.php/talks/
ken_robinson_says_schools_kill_creativity.html](http://www.ted.com/index.php/talks/ken_robinson_says_schools_kill_creativity.html)

**SIR KEN ROBINSON
AT TED 2006**

**SCHOOLS WERE
SET UP TO MEET
THE NEEDS OF
INDUSTRIALISM,
NOT THE
INFORMATION AGE**

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WORKS QUOTED

Dewey, John "The School and Society" & "The Child and the Curriculum" in John Dewey on Education: Selected Writings, Reginald Archambault (ed) (Chicago: Univ of Chicago Press, 1964)

Holt, John Learning All the Time, (Reading, MA: Perseus Books, 1989)

Holt, John What Do I Do Monday?, (NY: E.P. Dutton & Co., 1970)

Pope, Denise Doing School (Yale University Press, 2003)

Tufte, Edward R. Visual Explanations (Cheshire, CT: Graphics Press LLC, 1997)

William, Dylan "Integrating assessment with instruction to keep learning on track" Plenary address to NSTA Convention on Science Assessment, Anaheim, CA, 4/6/2006] accessed 3/5/07 from <http://www.dylanwilliam.net>