STRATEGIES TO PROMOTE SELF-DIRECTED LEARNING

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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??
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
WE CAN'T MAKE THEM
INTO US
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
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.

-EDWARD TUFTE

VISUAL EXPLANATIONS
MAGIC - THE OPPOSITE OF TEACHING

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

CONTEXT IS CONTRIVED OR NONEXISTENT

David Copperfield Illusion DVD 2000
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?
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
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?


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]
WHAT DOES THE RESEARCH SAY?

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.

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.

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


[An NPR interview with Car]
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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
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?
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.
SELF-DIRECTION PROMOTERS

GRADE BASED ON PROGRESS AND EFFORT

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AUTHENTIC LEARNING

FROM METIRI.COM
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
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
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 an 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
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
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]
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
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]
An implicit assumption in an educational system is that only a few will succeed.

- DENISE POPE
  DOING SCHOOL
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
Taking time to reflect and engage material would only slow students down and adversely affect grades.

- DENISE POPE
  DOING SCHOOL
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
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
DO SCHOOLS KILL CREATIVITY?

SIR KEN ROBINSON AT TED 2006

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

Sir Ken Robinson, speaking at the TED conference in 2006
http://www.ted.com/index.php/talks/ken_robinson_says_schools_kill Creativity.html
WORKS QUOTED


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


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