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Assessment Survival Skills

How to help students learn, give fair and accurate grades, and not lose your mind

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Introduction

Some Things That Help Students Learn	Notes:
1. Consistency, especially in responding to disrespectful behaviour 2. Ratio (how much students think/talk/do, compared to how much instructors think/talk/do 3. Trust 4. Awesome lesson plans The BEST lesson plan can never compensate for inconsistency, lack of student practise time, or loss of trust. A well-rested teacher is more consistent, patient with student practise, and trust-earning!	
Common Struggles 1. Grading takes all night 2. Students don't use feedback, so they keep making the same mistakes 3. I'm spending too much time in lab/shop answering simple questions, not enough time to help students who really need it 4. Students need more/better assignment or quiz questions 5. Assignments are passed in but instructions are not fully followed 6. Other struggles?	**What I want to work on today:**

Techniques to Use If…

1. Grading Takes All Night a) Write feedback about correctness, but give grades only for completeness (faster than figuring out how many partial points to assign) b) Give quiz/assignment fixing as an assignment (students write the feedback *instead of you*) c) Use "Easy-Medium-Hard" style assignment (students can point out which questions they do and don't need feedback on) d) Have students write a lab/shop journal instead of lab reports, and inspect the journal as part of inspecting the work e) Other strategies:	**How I could modify this for my work:**
2. Students Don't Use Feedback a) Keep feedback focussed on what they *did* (met the requirements, kept working even when frustrated) rather than what they *are* (smart, talented, etc.) b) Teach students to write an inspection report for their own work, and count it as an assignment c) Teach students to write an inspection report for each other's work, and count it as an assignment d) Use a "2-copy quiz" (http://bit.ly/1Ol91Lb) e) See also 1b f) Other strategies:	**How I could modify this for my work:**

3. Students are Dependent in the Shop/Lab	How I could modify this for my work:
a) Demo the skill *in person* b) Create an inspection sheet students can use to inspect their own and each other's work. c) Require students to check 2 sources before you d) Create a handout of partially-completed notes for them to fill in during the demonstration, and use during their activity (a bit like this one. It's called a "comprehension constructor") e) Launch 2-3 related activities together, so that if students get stuck on one they can work on the other until you get to them f) Other strategies:	
4. I Need More/Better Assignment and Quiz Questions	**How I could modify this for my work:**
a) Use "Easy-Medium-Hard" style assignments to get a better feel for what students know/don't know b) If your text has **multiple-choice** questions: "Modify the question so *a* is the correct answer." c) If your text has **numerical-answer** questions: "Modify the question so *42* is the correct answer." OR "Rank questions 1-7 so their answers are in order from lowest to highest". OR "if the first value is changed from 6 to 7, will the answer go up, down, or stay the same? Why?" d) If your text has shor**t-answer or essay questions**: give an example of a common mistaken answer and ask, "What, if anything, is wrong with this answer?" or "How would you improve this answer" or "What would you	

say to a student who wrote this answer?" e) If your text has **questions with diagrams**: ask students to show the same question in a different form. For example, if the diagram is a bar graph, ask them for a table of values, or a formula, or a sketch (or ask them to come up with a reasonable alternate representation). f) Give several commonly-confused answers to a question and ask "which of these do you agree with and why?" g) Other strategies:	
5. Instructions Are Not Followed a) Give students an example of a fully-complete assignment b) See also 1b, 2a, 2b, 3a, 3b c) Other strategies:	**How I could modify this for my work:**

Practise

Choose an assignment, test, or part of your curriculum that you would like to revise

Apply one of the techniques we discussed, or another one that you have in mind.

Questions that got answered:	**Questions that are partly answered?**	**Questions that were not answered:**	**New questions I hadn't thought of before:**

Bibliography

[1] R. Moroney, "The Wall Street Journal," 13 February 2007. [Online]. Available: http://blogs.wsj.com/informedreader/2007/02/13/the-praise-a-child-should-never-hear/. [Accessed 7 July 2013].

The Praise a Child Should Never Hear

Praise, long considered the cure to a host of childhood and societal problems from bullying to alcoholism, might in fact be a problem for kids, writes novelist and journalist Po Bronson in New York Magazine. Parents might enjoy calling their children smart, but it can play havoc with a child's ability to learn.

For decades, child psychologists and educators had operated under the assumption that praise boosts self-esteem and, ultimately, performance. But after some of the early research on praise was called into question, some psychologists have begun looking at whether complimenting children on their innate abilities actually could hurt them.

Mr. Bronson highlights a study of 400 fifth-graders conducted by psychologist Carol Dweck and a team at Columbia University in which the children took three tests. The second test purposely was made difficult enough that every child failed. What the scientists found was that kids who had been praised for their *effort* recovered from that failure by the third test to achieve scores 30% higher than on their first test. Meanwhile, the students who were praised for their *intelligence* had scores that were 20% lower. Ms. Dweck's conclusion: You should praise children for qualities they can control, like effort. Those praised for their innate brainpower might develop the sense that hard work isn't necessary.

Applying this research to his own life, Mr. Bronson finds his child responds well to process-centered praise (good work chasing down the ball). The problem is, Mr. Bronson discovers he misses giving his child unconditional compliments ("You're great — I'm proud of you"). "We expect so much of [our children], but we hide our expectations behind constant glowing praise." Being too quick with praise can be as detrimental as jumping in too soon to help with a homework problem — it robs kids of the rewards of discovering how smart they are on their own. — *Robin Moroney*

[1]

Inspection Report for Written Work

Question This Report Answers: _____

Written by: Robin Moroney

Assessed by:

Date:

<table>
<tr><td colspan="2">Checking for clarity:
Summarize in your own words so the author knows whether you understood</td><td rowspan="2">Checking for consistency:
How does your real-world experience contradict or support this?</td></tr>
<tr><td>Title and author of original source</td><td>How Not to Talk to Your Kids: The Inverse Power of Praise (Po Bronson, New York Times Magazine)</td></tr>
</table>

Inspection Report for Hands-On Work

Soldered by:	J Smith
Inspected by:	M DiPenta

Pre-soldering Checks	**Documentation**
Date that personnel proficiency was last documented on skill sheet	
Date of tool, material, and process testing	
Solder type	
Solder bath impurities within accepted limits?	Y / N / NA
Workstation cleaned before beginning?	Y / N
New or specialized materials or processes?	Y / N
If yes, where are testing results found?	
Gold-plated contacts?	Y / N
If yes, where is solderability process found?	
ESD-sensitive components?	Y / N
If yes, where is ESD procedure found?	
Heat-sensitive components?	Y / N
If yes, where is heat-control procedure found?	

Post-soldering Checks	
Visual inspection magnification power	3x / 7.5x / 10x / 20x
No broken strands	☐
No damage to component bodies	☐
No damage to component lead seals	☐
No component internal surfaces exposed	☐
No components trimmed beyond meniscus	☐
Clearance maintained between metal case components and exposed circuits	☐
No adhesives interfering with solder	☐
All stacked parts maintain electrical clearance	☐
All through-hole joints are 100% filled, 360 degree wetted on both sides, filleted	☐
Cleaning process C-20 completed (both sides cleaned with FR, isopropanol)	☐
Visual inspection shows no signs of marks, scratches, flux residue, dirt, contaminants	☐
No damage to board's edge or surface	☐
No lifted lands	☐
No measles	☐
No conformal coating added	☐

Soldering Technician's Signature
Date
Inspector's Signature:
Date:

D-Shell Connector

Name: _____

Shape: Trazepoid-shaped shell, flange mounted into backshell

Formal Names:

-
-

Informal Names:

-
-

Varieties:

- Number of Pins:
- Contact types:

(1)

Normal current expected to flow: _____

Max current expected to flow: _____

What wire gauge did you use? Why?

On the connector, label the pins, shell, flange,and backshell

Easy-Medium-Hard

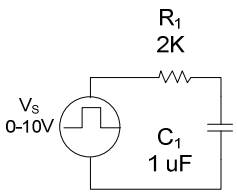
Name

Series Circuits Date

EASY

p. 123, Q# 12-14

Find C_T.



Reasoning shown neatly here

Lots of blank space between question

Include:

- **Show:**
  - Your name
  - Date
  - Title ("Series Circuits", or etc.)
  - Page #
  - Question #
  - Schematic
  - What you're trying to find
  - The formula you used, **with subscripts**
- Use **engineering notation** at all times
- Show **units** at the end of all calculations
- Label voltages and currents **as DC, peak, peak-to-peak, RMS**, etc.
- And all other **best practices** for technical writing!

An **EASY** question is one that you could solve in your head.
A **MEDIUM** question is one that you can't solve in your head but you know how to do.
A **HARD** question is a true "problem": it is one that you don't know how to do yet.

1. Choose an easy question from the odd-numbered items in the back of the book. Draw the schematic on your paper, and write down what you're trying to find.
2. **Close the book.**
3. Solve the problem as far as you can.
   a. If you did not finish the problem, write a question about what information you need in order to continue. See me if you need help.
   b. If you finished the problem, *check your answer in the back of the book* and mark it right or wrong.
4. If you didn't complete the problem correctly, *choose another easy question* and repeat. Continue until you can solve an easy question.
5. Repeat steps 1-4 with a medium question.
6. Choose a hard question. Write it down. Make a note about what you're not sure about or don't know how to do.
7. That's it! Turn in to teacher.