

## Cassell Kristalyn

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**From:** benjamin barber <starworks5@gmail.com>  
**Sent:** Tuesday, March 05, 2013 1:46 PM  
**To:** Donovan Richard; Cassell Kristalyn; Sen Hass; Sen Knopp; Sen Beyer; Sen Kruse; Sen Roblan  
**Subject:** Re: SB 498 Testimony

Should read "\$50-\$100k per classroom"

On Tue, Mar 5, 2013 at 1:44 PM, benjamin barber <[starworks5@gmail.com](mailto:starworks5@gmail.com)> wrote:  
Dear Commitee

I am a volunteer teacher at Metropolitan Learning Center, and my wife is a Special Education masters student, and also has a Secondary Language Arts degree. We should Incorporate a 21st century shop experience around the concept of maker spaces, and integrate the idea of learning though creating along side learning through memorization, for instance physics students are learning electromagnetism could 3d print a motor housing and stator and wrap copper around it, then make meaningful measurements of mechanical motor output at given input power levels. The ability to program robotics and computer systems, will also contribute to the already large tech presence in oregon, with exactly the same skills that they would learn in class. I currently teach Computer Science and Electrical Engineering, in addition to biological sciences at MLC, and I have applied to teach at the OMSI Maker Center. There is going to be a summer maker program at OMSI, tailored for teaching engineering skills to young people, and I would like to see it transformed into a teacher training and cirriculum development program. The capital costs per school would be \$50-100k per class, not including the labor costs of hiring perhaps more qualified teachers or their training,

Sincerely,  
Benjamin Barber