

Standards Review Council Minutes

September 18, 2017

Attendance

Present Standards Review Council Members	Absent
<ul style="list-style-type: none">● Sen. Luther Olsen● Connie Valenza● Lisa Sanderfoot● Desiree Pointer-Mace● Anne Heck● Heather Mielke● Kim Brown● Tony Evers● John Johnson● Jill Gaskell● Mike Beighley● Dean Kaminski● Sen. Chris Larson● Carrie Morgan● Howard Kruschke	<ul style="list-style-type: none">● Chris Reader● Barbara Bales● Jenni Hofschulte● Rep. Dave Considine● Rep. Jeremy Thiesfeldt<ul style="list-style-type: none">○ Legislative Staff, Hariah Hutkowski, from his office attended the meeting

Notes

9:00am Introductions

9:05 am Welcome from State Superintendent Dr. Tony Evers

- Thanks to DPI staff and Council for work on standards. Discusses new Computer Science standards and their impact.

9:07 am Standards Process -- John Johnson, DPI

- Welcome to Dean Kaminski, new to council
- Overview of agenda
- Process:
 - Timeline of what's been done
 - Writing Committees do two face to face meetings, lots of remote work
 - Well represented writing committees
 - Lots of comments on standards - drafts widely shown
 - Co-chairs have done heavy lifting in writing
 - Overview of writing timeline

- Next step - make recommendation to State Superintendent, who can adopt standards with or without changes

9:15 am Draft Information and Technology Literacy (ITL)

- Presenters

- Janice Mertes, Assistant Director Instructional Media & Technology/Digital Learning, Wisconsin Department of Public Instruction
- Lois Alt, Retired Assistant superintendent, DC Everest School District, ITL Writing Co-Chair
- Beth Clarke, Director of Digital Learning, CESA 2, ITL Writing Co-Chair
- Kim Bannigan Learning Information Systems/Technology Coordinator, DeForest School District;
- Anu Ebbe, Principal, Shorewood Elementary School, Madison Metropolitan School District
- Chad Kliefoth, Digital Learning Consultant, Wisconsin Department of Public Instruction

- Background

- Foundations: Safety, literacy, critical thinking, creation, design thinking
- Lots of remote meetings, opinions, and respectful discussion and debate
 - Went over public comments with a fine-tooth comb to see how they fit in
- College/career ready students
- Alignment with Digital Learning Plan
- Lots of expertise on the council, including technologists, librarians, etc.
- Sources of inspiration:
 - Reviewed Common Sense Media - most widely-used source of content for schools for privacy, digital citizenship, etc.
 - Looked at many other Wisconsin standards, due to ITL's ability to overlap
 - Feedback from field
- Better to integrate than have an isolated curriculum
 - For all students, all grade levels
 - Connects to larger Digital Learning Plan
- Digital Learning plan + standards + the district's strategic plan will move them forward
- Old standards were like a Model T - will get you somewhere, but slowly and not far
 - New standards like a bullet train - get everyone onboard and to their destination quickly and together
- Unites different groups with common language: school media specialists, technology coaches, tech coordinators, teachers, administrator
- Classes have changed a lot since the 90s - from isolated computer classes/labs to technology in most classrooms

- School Perspective

- Impressed by process and product: kept schools in the center the entire time
- Important for schools in giving guidance to teachers by giving voice and choice to students, support personalized learning, and giving students a role in solving real world problems, help them be good citizens in a more interconnected world
- Excited by performance indicators - measurable by grade band
 - Teachers know what's expected of their students
 - Important for planning, teaching, reflecting cycle
 - Teachers look at all the standards and bring them together as they plan
 - Results in personalized approach to learning - schools are very diverse, with language/ability/etc. And the performance indicators help teacher differentiate
- This helps library media specialists create a menu of options for teachers to learn about

- Helpful for families as well - how to get involved and how to support students at home
- Integrated into their school improvement plans
- How ITL standards impact schools/districts to prepare for College/Career Ready
 - Teachers' time is valuable, integrating new things is tough. This isn't about giving them more to do, it's about justifying the amazing work teachers are often already doing, and showing how they align.
 - All grade levels and all content areas
 - Opportunity for students to experience technology in cohesive way - content driven with technology that lets them expand beyond the classroom
- What's Next
 - 3 year implementation plans for if standards are adopted
 - Adapting plan for ITL, for STEM, STEAM and everything in-between
 - Year 1: Pilots
 - Benchmarking and moving forward
 - Could integrate into technology purchasing process
 - DPI would get resources ready for district: documents, toolkit, glossary, integration exemplars, research and lit review
 - Will work with district teams and CESAS for fidelity of implementation and to help roll things out and curate into WISELearn
 - Not textbook driven - focused on tools, competencies, professional learning
- 9:50 am Discussion of ITL Draft and Recommendation
 - In July, we saw v. 1.0. What are some examples of changes since?
 - Gets more rigorous as grade increases. Made language consistent throughout the grades.
 - Looked at digital citizenship section due to feedback; expanded it and tied it into other resources being used.
 - All high schools have college/career readiness and character curriculum. It may be worth seeing who's doing great things there to make it easier to incorporate
 - There's a lot about habits of mind, this is for everyone, but teachers are learners also, and the content is shifting a lot in this field. Good to reference the ISTE standards. Wondering about the great national work about developing teachers/etc. as learners. Wonder about how teachers fit in as learners.
 - Working with CESAs to collaborate on PD for teachers
 - Important in schools to set up environment of risk taking and growth mindset so teachers can take more steps in learning
 - DPI will leverage professional learning. The resources will continue to evolve, even if we keep the standards for another 7 years.
 - Grandparent and equity question: what percent of this depends on good broadband connection?
 - Good connection is essential. State funds expansion of TEACH Grants for hotspot purchases. Districts can't address these until they assess access at school and at home. Ties into planning/budgeting for districts moving forward. Not everyone has computers - look at the role of the community and libraries. Another way to promote the Digital Learning Plan for equitable use for students of all grade levels.
 - Work with WASBO and other organizations to bring it up to all leadership stakeholders and make it clear this is a key issue.
 - Some districts this is a major issue, where just maintaining the building is the priority.
 - There are also strategies in the standards that don't require digital tools - citizenship, etc.

- Lots of grants let students check out hotspots to use at home.
 - Note that cell service is not available everywhere.
 - Digital access is both a state and national issue. Big for the economy: a house without broadband is worth 20% less.
 - Need to offer support to parents as well on how to support device use.
 - The standards could also be used with community groups and businesses, because this affects what types of employees businesses want. Overlap in broadband needs too.
 - Johnson - we've heard good recommendations on implementations. Haven't heard big concerns on content.
 - Do we have consensus on recommendation for adoption?
 - Yes.
- 5 minute break
- 10:15 am Music Draft
 - Presenters:
 - Mike Van Pelt, Riverside University High School Music Teacher, Milwaukee
 - Marie Northup, Principal, Fine Arts Coordinator, Wausau
 - Cathy Houchin, Webster/Lebanon Elementary Schools Music Teacher, Watertown
 - Julie Palkowski, WI DPI Fine Arts & Creativity Ed. Consultant
 - Background:
 - Updating the 1997 standards
 - Music is an elective in grades 7-12 but vast majority of students stay involved
 - Significant impact on economy, in WI and nationally
 - Standards work timeline ran from late April - today
 - Focused on reducing verbage to make it usable
 - Resources Used
 - 1997 Music standards
 - Other states' standards
 - Feedback from stakeholders/public
 - Well represented writing team
 - How do these help?
 - Allows students/parents to know what will be learned - be on the same page as teachers. Grade bands pinpoint what should be learned when. Provides flexibility and consistency and clarity for teachers/students.
 - Doesn't say how to teach, just uses clear language to define proficiency.
 - Assists instruction, in programming decisions, accessible to administrators without fine arts backgrounds
 - Overview of the survey responses from the 66 people
 - Feedback split between wanting a conceptual tool vs. a more prescriptive one.
 - Since districts are responsible for their content, DPI standards focused on the conceptual
 - Interest in deeper connection with literacy and performance skill - this feedback was incorporated into updates
 - Next steps for writing team - provide supplemental resources for early childhood, gifted, and special needs
- 10:40 am Discussion of the New Academic Standards in Music and recommendation of the Council to the State Superintendent regarding their adoption
 - For new teachers how are the new standards are an improvement over the old ones?
 - Updated language matches what's done at the national level.

- The old standards were good, but are 20 years old. How our students learn has changed immensely - new focus on collaboration, critical thinking, etc.
 - The old standards are embedded in these new standards
 - Old standards didn't have strands - general and performance. Some old standards didn't fit well with performing.
 - Standards are broad because of the differences between districts. We have a shortage of teachers. Need to allow for local control.
 - Interest in cross-connections and cultural tie-ins.
 - Music is powerful for cultural understanding, brain development, etc.
 - How does that affect my professional development for a new, non-music teacher? How do we encourage this to be less siloed?
 - Encourages teachers to think about music in a new way. Gets back to foundational skills, deeper thinking - why composers made particular choices.
 - See page 17, regardless of grade teachers can pick anything out and use it in any class. Goal to simplify the terminology to make it recognizable and useful to non-music folks - administrators, teachers, parents.
 - Are you concerned about the split in the feedback? Would you get a better response now?
 - Seemed like people are looking for a curricular piece instead of standards, but that's not what DPI does.
 - Recommendation to incorporate that into roll out messaging.
 - The 1997 standards were nine sentences. The national ones were huge, almost a curriculum. Tried to fit in between.
 - Can you give more examples of how you incorporated feedback?
 - Discussion of whether to use term Grade Band, since band has other meanings in music.
 - Are 61 respondents enough, particularly given the divided response?
 - Also got 24 responses from the Critical Responses, but it's a challenging time of year to get responses from teachers.
 - Schools focus on the areas that are tested, not music.
 - What connections are there to the work of the WI School Music Association?
 - One presenter was invited to some of their work earlier. At that point, they were just adopting the national standards word for word (all 26,000 of them)
 - Standards let teachers communicate to administrators the importance of the subject
 - These won't be the only standards used in the state since no one's forced to adopt them.
 - Supporting our hardworking music teachers and recognizing their contributions is worthwhile. Doesn't seem worth waiting more than 20 years to get more respondents.
 - Good, useful length
- Do we have data on how many teachers use which standards?
 - Polled the G+ Community, ~150 educators. Majority at the time (last December) used the 1997 standards. The NCAS was launched in 2014, and has been slowly spreading. In the initial survey in Feb/March, people liked aspects of both of those. IB standards didn't come up much.
- Johnson - 6.5 years from now, we can revisit these. We'll also push for more respondents for the other arts standards.
 - Hearing that people are interested in moving forward with these, with the understanding that teachers have other options as well.
 - Consensus to adopt.

- 11:05 am Draft Science Standards

- Presenters:
 - Chris Pratt, Science Coordinator, Kenosha Unified School District - Science Standards Writing Committee Co-Chair
 - Eric Brunsell, Science Education Professor, UW-Oshkosh - Science Standards Writing Committee Co-Chair
 - Kevin Anderson
- Background
 - Helps show career pathways so students are prepared for what comes next.
 - Current standards are old - 1998. 80+% of respondents see need for new standards.
 - 79% of districts already use NGSS
 - Support from Wisconsin Society of Science Teachers and other statewide groups (e.g. the leadership association)
 - Well represented writing committee - important to have a wide perspective
 - 4 work groups: Life Science, Physical Science, Earth & Space Science, and Engineering
 - Focus on what's good for Students, their Communities, and the World
 - Discourse consensus model used.
 - Aim that standards speak to all students.
 - Thinking about connections to non-science areas as well and local communities
 - Focus on voice & choice for students
- Writing Process Goals
 - Honor the work already happening in the state - movement towards NGSS but add something Wisconsin-centric too
 - Fidelity to Framework and NGSS
- Changes based on public review
 - Clarified a lot of wording
 - Rearranged sections
 - About 100 comments in public review period

- 11:30 am Discussion of the New Academic Standards in Science and recommendation of the Council to the State Superintendent regarding their adoption

- When people look at our standards, will they be rigorous and comprehensive enough?
 - Confident in rigor, moving the engineering practices and problem solving to the forefront helped
 - Using NGSS as the backbone and bringing in additional tools and WI connections adds that rigor.
 - Specific addition of mathematical/computational thinking is a step ahead of a lot of other high performing countries
- Professional development for early grades is key
 - New focus is on kids figuring things out, and that's easier for teachers to get onboard with. Teachers aren't stuck in encyclopedic role.

- Elementary level is where these will probably have the biggest impact. They do a good job of clarifying what's expected by grade level, and honors the limited classroom time elementary school teachers get. K-5 content is concrete and tangible, becoming more abstract for later grades.
- Concern expressed that almost half seems to be life sciences compared with little physical science.
 - Writers increased the level of physical science, but not the traditional chemistry textbook way - focused on real world applications instead.
 - This is a baseline for all students - the floor, not ceiling. Represents approximately a semester each of chemistry and physics, a year of biology, and ongoing engineering.
 - This is also more rigorous than our old standards, and perhaps less expansive in directly spelling out each point.
 - Many elective courses, like chemistry and physics, go beyond these standards. Those are guided by standards like IB, disciplines-specific ones, etc.
 - The standard sequence of chemistry, biology, then physics, is now only taken by a minority of students. More integrated curriculums these days.
 - The content becomes secondary to the skills/practices. Students need to analyze and interpret the data and questions within contexts.
- Great to have the cross-cutting concepts and practices at the front. How does it help those who don't know where to start?
 - Knowing that this is a hefty document, and so is NGSS, supporting supplemental chapters are planned.
 - Recommendation for a one paragraph on how to read this in the introduction, with what supplements are available and how teachers fit in.
- Hutkowski - good process but expressed concerns on the size of the document. Asked to be on the record as questioning the lack of inclusion of intelligent design and the portrayal of evolution and climate change as facts rather than theories. Those are Rep. Thiesfeldt's main concerns.
 - Intelligent design was not included because doing so would violate the establishment clause in the constitution, and there are some specific legal cases about that.
 - Both evolution and climate change are treated as theories. Scientific theories are thoroughly defined here since there's often confusion between the conventional use of theory (like a guess) vs. an evidence based explanation for things that can change if contradictory evidence is found.
 - Johnson - Offered to Hutkowski to have an email with specific comments from Rep. Thiesfeldt put into the record.
 - A draft of Science standards had also been sent to the Representative's office in July for review and the writing committee had not received any comments to put into their review/revision process in developing the final draft of standards.
- If you're in a district that has already adopted the NGSS, how do these help?
 - Some districts have worked with NGSS for four years now. Depending that to switch isn't necessary, and these are compatible. The tools brought up earlier will be useful to all districts in Wisconsin.
- Does putting the Wisconsin Connections in reach into the curriculum arena?
 - The examples help interpret the standard, but do not serve as a curriculum. The connection illustrates a way to bring that content to life in WI communities and curriculum.
 - Suggestion to make the Wisconsin Connections section a separate document.

- The connections help students and can be useful in pre-teachers taking the EdTPA - they need to make connections between instruction and students' lived experiences.
- The feedback showed the Connections are the favorite part of the standards
- Concern that Connections impact would be diminished if it was removed/relocated.
- Wisconsin-focus of science can feel political.
- The standards document could stand on its own with the Connections in a separate document.
- Is there a way to frame this more clearly?
 - Compromise of putting the Connections in an appendix proposed - less visible and more clearly separate from the standards themselves, but still part of the document.
 - Recommendation to keep this in mind for other standards
- Johnson - the Council's task is to provide a recommendation on this draft. We usually do consensus, but can vote if there's a need. Johnson called for motions.
 - Brown - motion to move forward with standards, moving Connections to appendix section
 - 11 in favor
 - 1 opposed, 1 abstained
- Request to see the appendix version before it goes out
- The Council recommended the State Superintendent adopt the new Wisconsin Standards for Science, and recommended an edit to the document that is forwarded for his review.

- Noon Break for Lunch (on your own)

Afternoon Sessions

Attendance for Afternoon

1. Connie Valenza
2. Lisa Sanderfoot
3. Desiree
4. Anne Heck
5. Heather Mielke
6. Kim Brown
7. John Johnson
8. Jill Gaskell
9. Mike Beighley
10. Dean Kaminski
11. Chris Larson
12. Howard Kruschke

- 1:00 pm Discussion of Timeline for Review of Wisconsin Academic Standards

-- John Johnson

- If teachers are getting new standards every five years, they're only using them for about three due to implementation time.
- Next time we revisit these standards, they won't be nearly as old as the ones we're dealing with now.
- Does this timeline look good and doable?
 - Does it make sense to do Math Essential Elements at the same time as Math?
 - It relies on the Math, so it will follow Math in timeline
- Group consensus to support the Academic Standards Revision Timeline.
- Recommendation forwarded to the State Superintendent.

- 1:10 pm Discussion of Wisconsin Essential Elements: Science

- Presenters:
 - Kristen Burton - Educational Consultant, Assessment
 - Daniel Parker - Assistant Director, Special Education
 - Kevin Anderson - Educational Consultant, Science
- Background:
 - About 1% of our students have the most significant cognitive disabilities (e.g. autism, multiple disabilities, traumatic brain injury, etc.) - in tested grades, about 5,500 kids.
 - Essential Elements are what these students should learn.
 - Linked to the Academic Standards - so when there are changes to those, it should be reflected here too, to remain aligned.
 - 2015 - adopted Essential Elements in Science
 - Note, the vocabulary used in the standards do not reflect the words the students are expected to use/understand
 - The group working on this is building Learning Maps - mapping the skill progressions. Once those are done, the successor level and learning maps may be integrated.
 - Teachers can also adapt and go beyond these standards.
- What about students with autism who may be high performing in particular subject areas?
 - Only a fraction of these students have autism. Most autistic kids would still be under the regular standards.
- Why Elementary, Middle, High instead of the grade bands as used in other standards?
 - Feedback was that that wasn't how it's taught in the classroom. Breaking it into grade bands wouldn't make a difference to how it's used.
- How would a second grade science standard differ from a middle school Essential Element standard?
 - The standards are a progression. The middle school standards tend to get more global, more complex. So what teachers look at what support students need to move towards those standards.
- Ninety-nine respondents weighed in on revising or at least aligning them
- Questions?
 - Are these flexible enough for students at different grade level abilities in different subject areas?

- The DPI recommendation is that if you are deciding a student is in that 1% of students that need EE, then they will be in EE across all subject areas with essential elements.
 - It's an IEP team decision. DPI guidance and criteria support how to, and how not to, make that decision.
- Standards guide where we want to get. IEP teams assess where a student's at, and what support they need. Some students may be above some standards and struggle with others. Regardless of grade level, the goal for the IEP team is to see where they are and how to work with them to get them closer.
 - How do you select the essential elements, since you can't select everything?
 - Similar process as ELA/Math: lots of content specialists, special education teachers, etc. all together to talk about what is being taught and what it means for those students. Examined across all grade levels for alignment.
 - Suggestion to let schools know these standards are attainable
- Science is a little different for EE. We'd like to bring together some teachers from both processes (Science Writing Committee and EE) and have them look at the alignment from two years ago and the new science standards. Then create a draft that will probably look pretty similar. This will differ somewhat for ELA and Math, since those may experience more changes. We want to come back in March with that final document. Do we need public hearings on EE like we do for the other areas?
 - There's often confusion over what population you're talking about - atypical within atypical, only 1% of students.
 - Johnson - anyone think we should put out a press release and do public hearings?
 - Zero votes
 - Suggestion - instead of sending it out to the entire public, can we get a critical mass of input another way?
 - We will push it out to those it is relevant to - organizations across the state, both parents and teachers who know this population
 - Since these align to science, the public has had opportunity to weigh in via the science standards - this isn't new content.
 - These are a foundation of what students should learn. But they're not content standards the same way the other academic standards are.
- 1:35 pm Council's recommendation on Wisconsin Essential Elements: Science
 - Consensus that for the revision of Essential Elements: Science, we follow a modified process due to the small population of students it serves.
- 1:45 pm Social Studies education and employment in Wisconsin:
 - Agenda:
 - What is Social Studies as an academic subject? -- Michael Koren, Director of Internal Affairs, Wisconsin Council for the Social Studies; former middle school social studies teacher, student teacher supervisor for Cardinal Stritch University & UW-Milwaukee
 - What is the current status of Social Studies education in a Wisconsin school district? -- Vicki Porior, Social Studies Lead, Oshkosh Area School District
 - What are the business needs in Wisconsin in the field of Social Studies? -- David Callender, Communications Director for the Wisconsin Taxpayers Alliance, former reporter for *The Capital Times*, political science instructor at Edgewood College
 - Social Studies is more than just history.

- It includes learning how to analyze sources, look at information. Check for bias, relevancy. Looking at how and why people act. Very important subject but not always taught every year.
- Founding Fathers discussed how important it is for democracy
- People have little understanding of economics even though it affects everyone. E.g. the average college student has lots of debt. Social studies helps.
- Civics - most people can't name their representatives and don't know how government works. Understanding our government, its structures and roles is relevant to everyone. We want active engaged people.
- Geographical understanding lets people see relationships between people, place, and land. Understand why people do things differently in different places. Reduce fear of difference.
- History - analysis of documents, primary sources. Examine different views and make reasoned and informed decisions. More information is available to students than when the old standards were written. Critical analysis is key for informed decisions.
- Psychology and Sociology help us understand people. Regardless of agreement, it's useful to understand why people think what they do.
- Why standards?
 - In an elementary school today, if social studies is being taught, the teacher probably isn't a social studies teacher.
 - Kids move around a lot, often between districts. If schools teach the same social studies skills, that learning can continue. Essential for higher ed programs because education students have to use standards in their lesson plans and to pass the EdTPA
 - The old standards came out in 1998.
 - Those standards aren't rich enough with critical reading/writing/evaluation
 - For the past 20 years, the MS students have used the 58 old standards to look at the world in two years. Including all those subject areas. Ancient history through modern day. Producing jacks of all trades, masters of none.
- What is it worth, what is valuable about Social Studies?
 - Shows need to evaluate sources. Tons of information on the internet, but no framework for evaluating it. Journalism teaches this critical skill.
 - Diversity is reality - the world is all connected these days. Being able to understand and translate those connections is important. It's a practical question.
 - Government is a black box - people don't understand what it is or how it works and don't like it. But people like things about their communities: libraries, parks, events, good roads, etc. Taking the abstraction out of government affects attitude. What they don't know or understand produces apathy and cynicism. Disengagement corrodes democracy.
 - 74% of americans can't name all 3 branches of government. 33% can't name a single branch.
- Survey Data
 - 233 respondents, 87% said it was either very important or important to develop new standards for social studies
 - National trends have changed and our standards don't reflect that
 - WI Council for the Social Studies (WCSS) - strongly supports the review/revision of Social Studies standards

- 2:15 pm Discussion of Review of Social Studies and public comment
 - Comment that today's students do not show the analyzing, critical thinking skills they need.
 - Getting the younger generation to recognize importance of community is key. Need leaders.
 - Comment that the breadth that social studies takes in is shocking
- 2:30 pm Council's recommendation on Social Studies Academic Standards, and any points to consider in their development
 - Consensus to recommend revision of Social Studies standards to the State Superintendent.
- 2:45 pm State of Environmental Education and employment in Wisconsin:
 - Agenda:
 - What is Environmental Education as an academic subject? Scott Ashmann, Associate Dean, College of Health, Education, and Social Welfare and Associate Professor, Science Education, University of Wisconsin-Green Bay
 - What is the current status of Environmental Education in a Wisconsin school district? Amanda Bolan, High Marq Environmental Charter School, Montello School District
 - What are the business needs in Wisconsin in the field of Environmental Education Theresa Lehman, Director of Sustainable Services, Miron Construction Co., Inc.
 - Scott - What are the standards in EnvEd?
 - Interdisciplinary field - content from health, sciences, social studies, ecology, etc.
 - Holistic perspective is very useful, and promoted by Environmental Ed standards
 - Academic, social, emotional, physical elements
 - Our economy is built on our natural resources
 - Kids don't spend as much time in nature these days
 - EnvEd provides a framework for thinking about current topics like power plants, resources use, etc.
 - Environment can also be a context for teaching ideas. E.g. if calculating a mean, could use random numbers (decontextualized, encapsulated), or could go out and gather data (e.g. average lobes on collected leaves)
 - Wisconsin is viewed as a leader in EnviroEd
 - Environmental Education in the Business World
 - This is about teaching ways of thinking, not content. In the business world, there are many key skills grounded in EnviroEd
 - The largest expense for business is people and health is a big factor
 - We spend 90% of our time indoors, so the built environment - air quality, etc.- affects our health, and even students' test scores.
 - Buildings designed for ecological and human impact have significant effects:
 - 75% decrease in allergies & asthma
 - 15% decrease in absenteeism
 - Decreased communicable diseases dramatically
 - Lake Mills Elementary for example - same price as other school buildings
 - \$85k in annual energy savings, even though the old school didn't even have air conditioning or good ventilation
 - Test scores and teacher retention up
 - Perfect example of what environmental education is for. And how it made this company successful.
 - Environmental Education = Employability
 - Solve complex problems, fosters creativity and critical thinking

- Survey Results: 165 respondents
 - Environmental Education is unique because there are formal teachers, and informal educators in nature centers, zoos, etc.
 - 97% said it's important or very important to revise
 - Got feedback on what strands to include
 - Lots of responses that students need to make informed, sustainable decisions whatever industry they end up in
 - Understand complexity of systems, our role in them, and systems thinking more broadly
 - Economics and environment go hand in hand
 - Lots of input on what should happen in elementary school (less on what currently is)
 - Hands on, authentic, personal connections, critical thinking and systems thinking skills
 - Most common thing actually done - an annual field trip. Lots of room for improvement
 - These standards reference other standards, so as they change, Environmental Education gets out of date automatically
- 3:15 pm Discussion of Review of Environmental Education and public comment
 - Why is this separate from science and social studies? Do we need another set of standards?
 - WI became the first state to have these standards. Our books and curriculum guide were sought after - contracted internationally to be used in Hong Kong, Hungary, and more.
 - Teachers could look at science, social studies etc. separately, but shouldn't have to. Environmental Education standards help by putting them all in one place, and show the connections to those other standards. Pushes thinking further along in how to use environment as a context and take concepts they need to teach and include a real world application and see how the standards fit together.
 - These integrate social studies and health and science in an applied fashion. It's a defined field, separate from Environmental Science. Environmental Science looks at a problem, collects data, and answers problem. Environmental Education takes the next steps - acting on data.
 - We have some other academic standards like this where there isn't a teaching license - like Personal Financial Literacy. Very interdisciplinary, and lots of push to get those created too. Doesn't replace the other subject areas, but gathers them together.
 - Is this considered core and required?
 - It fits in with core areas
- 3:30 pm Council's recommendation to the State Superintendent on Environmental Education Academic Standards
 - Consensus to recommend revision of Environmental Education standards to the State Superintendent.
 - Any specific recommendations?
 - The holistic perspective
- 3:45 pm Preview of next meeting and conclusion -- John Johnson, DPI
 - Next meeting: 3 standards
 - Essential Elements: Science
 - Social Studies

- Environmental Education
- You'll get the draft when it goes public in January, and you can give us feedback then, at the meeting, and on the final draft
- 2 new areas: School Counseling, and Theatre Education

