



WYOMING
DEPARTMENT OF EDUCATION

*Creating Opportunities
for Students to Keep
Wyoming Strong*

Jillian Balow

Superintendent of Public Instruction

Dicky Shanor

Chief of Staff

Brent Bacon

Chief Academic Officer

Brent Young

Chief Policy Officer

Dianne Bailey

Chief Operations Officer



Cheyenne Office

Hathaway Building, 2nd Floor

2300 Capitol Avenue

Cheyenne WY 82002-0206

Phone: (307) 777-7690

Fax: (307) 777-6234

Riverton Office

320 West Main

Riverton, WY 82501

Phone: (307) 857-9250

Fax: (307) 857-9256

On the Web

edu.wyoming.gov

wyomingmeasuresup.com

06/03/2016

To: Co-chairmen Senator Coe and Representative Northrup, Joint Education Committee

From: Jillian Balow, State Superintendent of Public Instruction

Re: Alignment of Public Education Efforts, (Priority #5)

Dear Co-chairmen and Committee Members,

Thank you for the opportunity to share my thoughts on updating the knowledge and skills requirements contained in W.S. §21-9-101. We have an opportunity to be national leaders on this subject and I am excited about that possibility.

There are three main overarching topics I want to discuss: (1) financial literacy, (2) coding, and (3) consolidating “skills” into “knowledge.”

1. Financial Literacy

What is financial literacy?

Financial literacy is the set of skills and knowledge that allow an individual to make informed and effective decisions with all of his or her financial resources. More technically, it can be described as a measure of understanding of financial concepts and ability to make strategic short and long term decisions.

Why is financial literacy needed?

Domestic and international studies evidence a need for financial literacy education for the world’s youth. Evidence of knowledge of banking concepts such as compound interest, credit card accounts, saving for retirement, and insuring against risk shows us that our youth are not adequately prepared in these areas.

What is the financial literacy situation in Wyoming today?

Similar to my analysis of the career and technical education landscape in Wyoming, we have pockets of excellence when it comes to financial literacy education but we can do much better statewide as a whole system.

One exemplar pocket is a project I am very passionate about in Casper. The Boys and Girls Clubs of Central Wyoming have worked diligently with industry partners for nearly a decade at bringing WyoTowne/AmeriTowne to fruition. It kicked off this year and is already a resounding success.

AmeriTowne is a program offered to 4th and 5th grade teachers to help teach students about business, economics, and free enterprise. More than 290 schools across Colorado participate in AmeriTowne each year. Teachers who elect to participate use the AmeriTowne curriculum and materials to teach classroom lessons and activities that introduce concepts such as supply and demand, job skills and work habits, banking procedures, democratic processes, civic consciousness, and career awareness. As with many fully-formed adoptable programs, AmeriTowne combines financial literacy with a political orientation to the marketplace in its simulated exercises.

Many schools in Natrona County school districts have adopted this curriculum and began implementation. The curriculum culminates with a practicum in a mock town where students play various roles in making the economy of the town work. The town is operated by Boys and Girls club staff, teachers, and industry volunteers from the community. It is an experience that has a lasting impact on students.

Below I will recommend a simple statutory change to bolster similar financial literacy efforts around the state.

2. “Coding”

What is coding?

Simply put, coding is the science of inputting commands into a computer to get it to do what you want it to do. In other words, it is programming. There are many different coding “languages” each with their own purpose. Some more commonly known languages are C++, JavaScript, Python, and Swift.

Why is coding education needed?

Coding is the science behind the technological world we live in. Everything from our smart phones and computers to our microwaves rely on code to operate. Studies predict a dearth of qualified applicants for anticipated coding job opportunities across the globe. In addition to the workforce opportunities, being fluent with technology is essential knowledge for 21st century students. They, like us all, are going to be increasingly dependent on computers for everything for the rest of their lives. It is incumbent upon us as education policy makers to provide our children with the opportunity to learn the coding knowledge and skills necessary to thrive in this new technological reality.

What is the coding situation in Wyoming today?

Coding is an emerging topic in both Wyoming education and industry. We are increasingly looking at the technology sector as a state to diversify our economy. And we are increasingly

looking at how we can better prepare our youth for those potential in and out of state job opportunities. Many hurdles exist around coding education in our public schools. One of those issues is lack of a computer science trained teacher pipeline. This issue is currently being addressed by the University of Wyoming and PTSB. You will hear from UW's Dr. Bryan Shader on this issue but to provide some background herein, PTSB in its April board meeting voted to give University of Wyoming provisional program approval for an endorsement in computer science. UW is now able to start recruiting students in this field and update PTSB on developments. Prior to this vote, there was no approved program for computer science endorsement in Wyoming.

Another endorsement option is the Praxis exam. By adopting the computer science Praxis exam, the PTSB now offers another way for educators to be able to add computer science, but will still need 27 credit hours in computer science to be endorsed.

Further options are also being explored.

Some pockets of excellence exist in Wyoming on coding. For example, Sheridan #2 is developing connections with post-secondary institutions to offer coding courses and working on a robust pipeline with industry for internships. Laramie #1 and Laramie County Community College are exploring ways to boost coding opportunities with dual/concurrent enrollment classes.

Below I will recommend a simple statutory change to bolster coding efforts around the state.

3. “Consolidating Skills into Knowledge”

The distinction between the common core of knowledge and skills is unnecessary. The skills currently listed are and will continue to be properly developed through the teaching of knowledge. A separate statutory delineation of “skills” is not needed anymore.

Therefore, in an effort to codify the importance of financial literacy and coding into our education system, and to simplify current law around educational programming, I respectfully suggest the following statutory changes to W.S. §21-9-101:

(b) Each school district within the state shall provide educational programs sufficient to meet uniform student content and performance standards at the level established by the state board of education in the following areas of knowledge and skills:

- (i) Common core of knowledge **and skills**:
 - (A) Reading/language arts;
 - (B) Social studies;
 - (C) Mathematics;
 - (D) Science;
 - (E) Fine arts and performing arts;
 - (F) Physical education;
 - (G) Health and safety;
 - (H) Humanities;

- (J) ~~Career/vocational~~ Career and technical education;
- (K) Foreign cultures and languages;
- (M) Applied technology;
- (N) Government and civics including state and federal constitutions

pursuant to W.S. 21-9-102.

- (O) Coding; and
- (P) Financial literacy

(ii) For grades one (1) through eight (8), reading, writing and mathematics shall be emphasized under the common core of knowledge specified under paragraph (b)(i) of this section;

~~(iii) Common core of skills:~~

- ~~(A) Problem solving;~~
- ~~(B) Interpersonal communications;~~
- ~~(C) Keyboarding and computer applications;~~
- ~~(D) Critical thinking;~~
- ~~(E) Creativity;~~
- ~~(F) Life skills, including personal financial management skills.~~

Thank you for your time and consideration.

Sincerely,

Jillian Balow
State Superintendent of Public Instruction.