

**AISI Cycle 5 Personalized Learning
PROPOSAL RESPONSE**



October 2012

Foreword

As the professional association of teachers, the Alberta Teachers' Association, including its subgroups, such as Local 38, is the authoritative voice of the teaching profession. In recognition of the central role teachers and the Association play in Alberta's education system, the Calgary Board of Education (CBE) provided Calgary Public Teachers (Alberta Teachers' Association Local 38) with copies of the AISI Cycle 5 Proposal in September 2012 and requested feedback. Local 38's Executive Committee reviewed the proposal and decided to seek input from our Council of School Representatives (CSR), an elected group of teachers comprised of at least one member (called a School Representative) from each of the 221 schools in the Calgary Board of Education who are chosen by their respective school staff to represent their interests at this democratic body.

On 2012 September 19, CSR members were invited to participate in an Orientation Evening during which time a presentation was made by Local 38 President Frank Bruseker (*APPENDIX A*) seeking feedback from School Representatives on the topic of AISI Cycle 5. Input was sought under five essential elements and five policy enablers of personalized learning, central elements of the CBE's AISI Cycle 5 Proposal. These originated from the Software & Information Industry Association's (SIIA) 2010 Symposium Report "*Innovate to Educate: System [Re]Design for Personalized Learning*". These ten areas were:

Essential Elements

1. Flexible, Anytime/Everywhere Learning
2. Redefine Teacher Role and Expand "Teacher"
3. Project-Based, Authentic Learning
4. Student-Driven Learning Path
5. Mastery/Competency-Based Progression/Pace

Policy Enablers

1. Redefine Use of Time (Carnegie Unit/Calendar)
2. Performance-Based, Time-Flexible Assessment
3. Equity in Access to Technology Infrastructure
4. Funding Models that Incentivize Completion
5. P-20 Continuum and Non-grade Band System

Mr. Bruseker asked School Representatives to choose one of the ten topics as a lens through which to provide feedback. Using that lens, the school representatives were asked to answer the following two questions:

- 1) What do teachers require to implement and support personalized learning?
- 2) What will personalized learning look like from the student perspective?

Participants self-selected the table where the conversation would focus on the topic of greatest interest to them. Each table facilitated a maximum of eight people. This provided for three discussion groups on every topic, translating to approximately 15-25 teachers participating in each of the ten areas. Participants were provided relevant background information on their topic (*APPENDIX B*) from the SIIA Symposium Report to help focus their discussions.

Recognizing that the Board is invested in personalized learning, school representatives focused their responses keenly on the prompts presented to them and left insightful feedback. Over the course of the next two weeks, the Local examined this feedback and found that several major themes emerged in each of the topic areas. These themes occasionally overlap, but ultimately are consistent with the body of literature describing effective implementation of programs characterized by personalized learning. This paper is a synthesis of the discussion of those school representatives. Teachers displayed a strong comprehension of the concept of personalized learning, but expressed a desire to effect change in a manner consistent with research and effective teaching practices.

Essential Elements

Teachers discussing topics classified as Essential Elements found that school boards and teachers could have a high degree of control over initiative implementation and intended outcomes. As such, the Orientation Evening participants had a number of comments regarding teacher needs and student perspectives to offer in these sections.

Flexible, Anytime/Everywhere Learning

Calgary teachers believe that a number of conditions must exist in order to facilitate flexible, anytime/everywhere learning. One of the primary elements that will ease the transition into this kind of a learning environment is **teacher time**. Participants identified that they required time in order to create online learning environments that supported their face-to-face classrooms, be they in Board-provided digital courseware, Desire2Learn (D2L), or using Web 2.0 technologies. Time is also required for teachers to participate in professional development and professional learning communities. Educators have a need to share knowledge and learn effective and innovative practices from other colleagues at their site, but recognize that such sharing would need to be built into teachers' work days along with dedicated time in order for *meaningful* collaboration and professional development to occur.

School Representatives also indicated that there are pre-conditions that must exist before personalized learning can be fully implemented. **Collective bargaining agreement definitions of teacher work days** are clearly required as participants expressed concern that *learning* anytime/anywhere also meant *teaching* anytime/anywhere. This kind of distinction, as well as discussions around implications for teacher workload, must be addressed in the early stages of program implementation. Clarifying the concept of teacher work days is necessary to prevent violations of instructional or assignable hour limitations in the collective agreement.

There was a desire expressed in the orientation session for **specific technical training professional development opportunities** to support an online curriculum and digital teaching tools. Teachers value the expansion of resources available to them to improve professional practice, but the skill level of teachers in Calgary is very diverse. While some will be naturally comfortable with an increased reliance on technology, others will need support in order to facilitate an effective implementation.

Other teachers looked at the larger picture of district implementation and recognized that there is a need for **system redesign to support personalization**. Specific mention was made with regard to redesigning assessment strategies. Common pacing and common school assessments do not necessarily fit with the paradigm of personalization. Greater flexibility must exist to allow teachers to utilize performance-based assessment tools and teacher-developed assessment instruments. Likewise, decreasing the emphasis on common reporting times would support students' variable pacing through courses. This appears to support a reexamination of the Carnegie unit, as described later in this paper. Another CBE process specifically named in support of redesign was field trip/duty-of-care forms. Participants

expressed a need for these processes to be “revamped or loosened” in order to give teachers an opportunity to provide students with additional meaningful, first-hand experiences. This would facilitate the concept of “Everywhere” learning. The participants explained that these increasingly complex forms take up so much time that it reduces teachers’ and students’ ability to participate in such experiences because there is insufficient time to plan the excursions. Due to this complexity many teachers reported a reluctance to plan field trips for their students. A question was raised as to whether the CBE had tracked the number of field trips over the years and if they had noted a decline in their number.

Positional support to facilitate teachers’ work was also named as being vitally important in the drive towards personalizing learning. Specific positions mentioned included school technology experts, to provide support for teachers that need assistance with Web 2.0 technology, blogs, or D2L; full-time technology teachers, who could aid in the learning process for students, as their learning curve would also be quite high when it comes to new technologies; and educational assistants to help cope with the increasing student diversity and additional complexities of management that result from personalizing learning for every student.

Teachers expressed concern regarding **student motivation and preparation in order to achieve successful implementation of personalized learning**. Teachers feared that students might fall through the cracks if they were unmotivated or unprepared for a personalized learning environment. With regimented course pacing removed, teachers were concerned that unmotivated students would further disengage from their education. Teachers felt that students needed to be gradually introduced to the process, rather than fully immersed in this new way of doing things.

Teachers also considered what flexible, anytime/everywhere learning would look like from the **students’ perspective**. A number of ideologies became immediately apparent. Students may experience a decrease in stress, as the pressure exerted on them from the school system to finish courses in a set timeframe would be removed. Students would enjoy the freedom to study and complete course expectations at their own pace. Students would also be excited to have greater voice and choice in their education, and in creative scheduling processes that allow them to access school and school resources on their own terms. Teachers questioned whether there would be a perception from some that they might all now be engaged in “special education” and the inherent fear of the negative connotation associated with this. Fear and uncertainty play a potentially large role for the student in this transition. Questions such as “what essential skills do I need, and who will teach me this?”, “will I be able to do my lessons via Skype or by watching a video?” will become commonplace. Teachers questioned whether some students would be disadvantaged if they lacked computer access at home, as much of personalization of learning appears to be reliant on computer technology. The issue of equitable access to computers is one that will need to be addressed by the system. Teachers also perceived that students would reflect back on their educational choices and experience regret for some of the decisions they made due to a lack of maturity – “I wish I had learned to read better so I could’ve learned more...” Another student experience teachers saw as a potential roadblock is the resistance to “old fashioned teaching” – teaching fundamental reading skills in the early grades, for example. Teachers were concerned that students may

resist proven, effective teaching practices and insist on “doing it their own way”, creating dysfunction in the teacher-student relationship and a potential loss of quality learning. As a result of personalized learning, students would likely feel more ownership over their educational experiences and, therefore, place greater value on their learning long after their formal schooling was complete.

Redefine Teacher Role and Expand “Teacher”

Participants in the orientation session had a great deal to contribute in this topic of discussion. Foremost on teachers’ minds were students. There was a strong consensus that **building relationships with students will always be the work of a teacher**. This, in fact, was identified as “the most important” role of a teacher. Participants named smaller class sizes as a requirement to enable greater personalization and smaller group work. One participant suggested that a cohort-model be examined whereby the investment teachers place in relationship-building with students not need be done annually, but rather, a teacher be assigned a cohort of students, relationships built, and that cohort remaining with the teacher over a protracted term (three years, for example) in order to facilitate non-traditional course progression and maximize the potential for students to achieve over time. One such model is the Teacher Advisor groupings found in some high schools where the same group of students remains with the same teacher for their three years in that school.

Participants were quick to explain that “**personalized teaching**” is just as necessary as **personalized learning**, which necessitates requisite increases in teacher autonomy as the authority on the educational welfare of the students they teach. Part of teacher autonomy includes recognition by the Board that personalizing learning takes time to plan and prepare. An increase in available non-instructional time where teachers participate only in planning activities was seen as essential to a redefined teacher role. Also inherent in personalized teaching is personalized professional development opportunities which recognize the individuality and unique needs of each teacher in the system. Some universal professional development training would be required. Participants felt that, as a new initiative from both the provincial government and the Board, the PD be mandatory and free of charge. Time must be provided within the school day/year for this PD to occur.

Teachers recognized that **role clarification and a common understanding of the definition of “teacher” are necessary**. Stakeholder engagement will be a vital element in discerning what a teacher’s new role in the classroom will look like. Some participants wondered if teachers would be rendered obsolete by online courses. Others expressed hope that the employer would consider some role separation by reducing teachers’ paperwork burden in order to allow time to focus on our core business of teaching. This could occur by creating new administrative assistant positions that would alleviate the need for teachers to spend so much time on “red tape paperwork”. There was also discussion about streamlining processes to retain subject experts from the community for certain topics. While the SIIA symposium document refers to a change in the definition of “Teacher” there may be legal difficulties that arise that were not anticipated during this American symposium. In Alberta, the definition of teacher may be

found in the Teaching Profession Act as *a person who holds a permanent or temporary certificate of qualification as a teacher issued by the Minister under the School Act*. The School Act then further stipulates that school boards may only hire as teachers those individuals who hold such a certificate.

Other practices were identified that would help to redefine/expand “teacher” – increased opportunities to **celebrate successful practices to honour teachers**, for example, would help to add value to the profession. Participants also cited the **Teaching Quality Standard** as requiring review in order to align it with personalized learning practices.

Student perspectives on a “redefined teacher” would vary widely, depending on what that redefinition entails. There would be some confusion, initially, regardless of the content of the changes. Currently, teachers are responsible for building strong, lasting relationships with students where this connection serves as the base for meaningful and personalized educational experiences. Since teachers focus on developing strong teacher/student relationships, students are likely to feel more engaged and connected to schools. As such, students are likely to develop deeper passions for their interests and learning. Students with a high degree of special needs will strongly value the opportunity to have greater one-to-one attention with a teacher they know and trust. Conversely, if ‘teacher’ is defined more broadly as field experts lacking strong roots in pedagogy, students may be forced to develop relationships with many different individuals, causing confusion and potentially some disconnection. While having various experts in the classroom may prove interesting and captivating to some, it may be distracting for others. Personalization may lead to students becoming more engaged but questions will arise regarding the responsibility for the formative and summative assessment of student learning. The result will be an expectation that students have an increased responsibility to advocate for themselves, as they may be working with a number of external experts rather than a single teacher. In either scenario, students will likely need to start doing a great deal more personal learning documentation and they will have greater responsibility for demonstrating their knowledge not only to teachers but also to other experts.

Project-Based/Authentic Learning Opportunities

Teachers advocate that **small groups are one of the best ways to support authentic learning**. While a number of formats and organizational models could be discussed, participants in the orientation session agreed that current class sizes are far too large to facilitate sustained project-based and/or authentic learning opportunities. While there was disagreement regarding the appropriate number of students a classroom ought to have, some suggestions included additional educational assistants or other support staff to help manage learning tasks.

Teachers also identified a need for extra **assistance in learning how to diversify instruction**. Recognizing that project-based assessment is a new approach to pedagogy for some of our members, many of our members expressed a need to receive meaningful, sustained professional development on such topics. Part of instructional diversification includes having **time to collaborate, plan and support students** and time for participation in professional

learning communities. Teachers expressed concern that the CBE's new *Iris* system would simply place additional workload on teachers. How will the additional workload of *Iris* facilitate the additional workload created by personalization? Participants also noted that they would need additional time to complete documentation on project-based learning, provide feedback on this learning to students, and increase parent/guardian contacts; all of these will become increasingly vital in the learning process.

In terms of system beliefs and processes, teachers want the CBE to recognize that **professional autonomy supports personalization**. There appears to be a perception that teachers are not trusted to do the work they are given. Reference was made to increasingly complex and onerous accountability measures. With increased trust in teacher competence and provision of additional professional autonomy, teachers can focus on their core work of personalizing learning and providing a high-quality education to all students. **System redesign** will be a long-term, ongoing and dynamic process requiring the cooperation of school boards, teachers and government. Among the tasks to be accomplished is curriculum redesign, including a reduction in the number of Learner Outcomes. Careful planning and selection of a small number of transformation initiatives that can be sustained over time is also required. Teachers clearly accepted the concept of transformation but expressed a desire to limit the number of new initiatives and slow the pace of change in order to better support the implementation and proper development of personalization. Teachers also suggested partnering with school boards and government in order to **redesign assessment to support personalization and project-based/authentic assessment**. If students are going to have different learning experiences as a result of personalized **learning**, it follows that there will need to also be personalized **assessment**. This will necessitate the elimination of Provincial Achievement Tests in their current form and may further require a significant restructuring of high school Diploma Exams. Teachers also pointed to current parent reporting methods as requiring revision to fully support project-based learning and authentic assessment.

Student perspectives on project-based and authentic learning will largely depend on students' learning styles. In an era of personalization, teachers pointed out, students will need to "know how to choose" not just types of assessments, but also learning conditions. These might include teaching styles, environments, materials, technology tools, project completion timelines, and a myriad of other factors that teachers will need to be able to support. The new work of teachers will include assisting and guiding students in personalizing their own learning. This will require the greatest amount of direction with younger students who do not have the capacity to make educated choices and should decrease with students as they progress through the higher grades. Still, teachers will require professional development in this area to ensure that they can provide the guidance to students with a variety of interests and abilities. Students will need to have the capacity to understand why each student is not getting "equal" treatment. This may be difficult for some younger or less mature learners, but can be supported by a change in teaching practice. Authentic learning supports students learning natural consequences as well as personal responsibility. This fits into a component of self-assessment that often integrates easily with authentic learning ideologies. Overall, students will likely see an increase in creativity, as personalization supports independent and original thought.

Student-Driven Learning Path

In the Orientation Evening discussion groups, teachers reiterated that **curriculum redesign** to provide for more generalized learner outcomes, **technology availability & support, professional autonomy, and assessment redesign**, as described above, all fit with developing a student-driven learning path. The provision of increased student choice will necessitate structural changes to the education system at school, board, and government levels.

Provided the above changes occur, teachers felt that certain groundwork would need to be done in an effort to prepare students for implementation. Students in our current educational system will frequently choose “the easiest way”, teachers said. One need only look to the increasing demand for -2 courses at high schools compared to -1 courses. Preparing students for personalization will involve motivating them to make choices that will challenge them as well as engage them, to choose the road not taken. Students will need to be prepared for educational choice, but within the context of education as a collaborative enterprise. Teachers have a comprehensive grasp of students’ educational needs, but for students to have choice, educators and the system will have to relinquish control over the direction of student learning. Instead, teachers will have to focus on mentoring students and guiding them in appropriate directions. To a certain extent, teachers will have to ‘sell’ students on the paths they are advising, which may not always be the most successful course of action. In the past, teachers have always used their professional judgment in making pedagogical choices for students. In a personalized learning situation, if students make poor educational choices, teachers will have little ability to correct them. As such, detailed conversations will also need to be held in advance of implementation about **appropriate limitations to student choice**, setting out clear boundaries where the students’ educational needs as identified by the professional teacher take precedence over student choice.

Many participants had questions about whether students at any age could understand the choices they would need to be making about their education. Early elementary students were often pointed to as being incapable of this. Most teachers felt that, with support, older students could become competent enough to understand personalization and make positive educational choices. Others asked “how will students know what is available for them to learn?”, and “how will students be able to choose their path if they don’t know what skills they need?” How will students be able to understand the skill sets required for their futures? When do students have to make decisions about their futures? What happens when they ultimately change their minds

The Road Not Taken – Robert Frost

Two roads diverged in a yellow wood,
And sorry I could not travel both
And be one traveler, long I stood
And looked down one as far as I could
To where it bent in the undergrowth;

Then took the other, as just as fair,
And having perhaps the better claim
Because it was grassy and wanted wear,
Though as for that the passing there
Had worn them really about the same,

And both that morning equally lay
In leaves no step had trodden black.
Oh, I marked the first for another day!
Yet knowing how way leads on to way
I doubted if I should ever come back.

I shall be telling this with a sigh
Somewhere ages and ages hence:
Two roads diverged in a wood, and I,
I took the one less traveled by,
And that has made all the difference.

and what will the implications for their educational path be as a result? These questions will need to be answered in order for students to have true “choice” and not be disadvantaged by earlier decisions.

Student perspectives on a student-driven learning path will be positive, initially, as students become engaged by the opportunity to choose. Excitement over opportunities to be creative, have input into lessons and projects, and choosing interesting areas of study will be very enticing. Students with lower self-awareness may, however, be equally as frustrated as others are engaged. With greater choice over *how* they learn, students will be asking for even greater access to technology than is currently available. A large investment will need to be made in technology supports, which must then be renewed on a regular basis to ensure students have access to the latest systems in order to meet their learning goals. One teacher mentioned a specific concern regarding ELL students, whose reactions may have a common theme: “I do not know the language or culture well enough to verbalize my preferences, interests, learning styles, rubrics, assessment, goals: This is too abstract.” This group and students with severe special needs are unlikely to be able to drive their own learning path. Provisions will need to be made to accommodate these learners.

Mastery/Competency-Based Progression/Pace

Mastery-Based progression is a multi-faceted aspect of personalization that caused a great deal of division among our session participants. The first requirement of implementation, and indeed the most contentious among our members, was the **need for common understandings between stakeholder groups on the definition of mastery**. Teachers had questions surrounding what actually constituted mastery or competency, and what was considered sufficient evidence of mastery/competence for the purposes of public assurance. Despite the contentious nature of this definition, participants could agree that all stakeholders must be engaged to arrive at a solution acceptable to all parties including parents, community members, school boards, government, and teachers.

Other suggestions on supports that need to be in place to facilitate mastery/competency-based progression included **changes in teaching practices**, whereby teachers, as a group, are able to establish learner profiles and the Board adopts bottom-up direction from teachers regarding processes appropriate to meet learner needs. **System redesign to ensure funding equity** between schools is necessary. The difficulty of timetabling must be addressed if student mastery is a prerequisite for success.

Participants also raised the concern of **infrastructure issues**, asking how the management of physical spaces could be accomplished with a lack of clarity in student completion timelines. Additionally, specialized spaces such as labs, music rooms, theatres, and dance studios, could meet with capacity issues relatively quickly if the content proves challenging to a number of students, or, if demand for these programs exceeds physical capacity. Teachers will require early clarification on appropriate processes to manage these issues if there are no plans to expand physical spaces. Plans will also need to be in place for resource sharing. Resources

such as textbooks may experience a higher demand than inventory allows at schools. Both of these issues connect to the difficulty of coping with capacity and timetabling students in the paradigm of mastery progression. On the issue of resources and capacity, teachers are anticipating a need for more access to technology support based on students' individual progress and the move towards a more digitally-based curriculum. Students will need greater access to a greater variety of tools to achieve concept mastery.

Moreover, a **multi-age context adds additional complexity** that will require pre-implementation conversations/training with students to develop appropriate social skills. One teacher spoke specifically to the difficulty of selective grouping by ability; what is the process for reconciling what kids want versus what parents want? How do we help students overcome the stigma placed on age as we transition into a skills-based atmosphere rather than a cohort-based system? Teachers spoke to a strong desire for **professional development** to gain a better understanding of the answers to these questions, as well as be able to prepare for the pacing of mastery learning. Included in this is also the desire for **time to collaborate** and plan effective assessment and formative diagnostic tools. Formative assessments in particular will need to change frequently and regularly as student populations change. Teachers will need to be able to consult with their professional colleagues to ensure the best possible assessments are being used with their students. Discussion at participants' tables also touched on the possibility of time being provided on a regular basis to meet in subject specialty groups within the school and across the district to help facilitate this goal of improving assessment.

Student perspectives on mastery/competency-based pacing will again tend towards some initial showings of high engagement, as the removal of artificial timelines will reduce student stress. Teachers fear that some students' self-confidence will suffer under this new system. Will a slower learning pace make students subject to increased bullying? Will students' self-esteem suffer negatively if they do not progress? How can this be mitigated? Conversely, will the advent of individualized learning paces make any given student's chosen rate of progression a non-issue? Could lower self-confidence be compensated for by the creation of extra-curricular learning opportunities based on students' interests that would not have been available before? We also anticipate a higher degree of parental involvement in students' education, particularly where parents feel that students are not progressing "quickly enough". Students will be looking for "personalized learning role models," which may be more difficult as students often look to individuals their own age to fulfill this function.

The ability to "challenge" material, however, and show competency without being "stuck" in a classroom for an entire semester will excite many of our more advanced learners. This will facilitate time for them to focus on areas in which they are struggling rather than forcing them to spend equal amounts of time in all areas. This is an artificial and unnecessary requirement that does not recognize the uniqueness and individuality of students. There will be some need to "bridge the gaps" and help students understand *why* they need to learn the things they are being taught. Some students may not enjoy spending more time on learning topics that are "harder" for them but no less necessary, preferring instead to immerse themselves in subjects that are easy by comparison and more enjoyable.

Students will likely hope that mastery progression will mean additional hands-on/practical application learning. Students will gravitate towards this, as it truly helps them to achieve a mastery comprehension of subject material and allows them to put their knowledge into practice. In the words of Benjamin Franklin, "Tell me and I forget. Teach me and I remember. Involve me and I learn." Once again this speaks to having sufficient and proper tools in place for students to accomplish their objectives. Teachers would become arbiters of when a student needs more theoretical practice before delving into hands-on work.

Policy Enablers

Teachers examined the topics addressed in the “Policy Enablers” section with a critical eye. While many of the conversations necessary to effect change of this magnitude will have to occur in the provincial domain, there are still some implications that must be addressed at the local level.

Redefine Use of Time (Carnegie Unit/Calendar)

In respect to the redefinition of the use of time, it is clear that **only government can effect changes to legislation for time and programs of study**. If there are changes in the number of hours of instruction, what happens to the curriculum? Current programs of study are often difficult to complete with current time allotments. What happens if those time allotments are reduced or restricted? Teachers will need to have sufficient professional autonomy to be able to make the decision to allow students the ability to move forward in their studies regardless of the amount of time spent on a particular topic.

Teachers revisited the theme of collective bargaining agreement changes that would be required for the **definition of a teacher work day**. Broader discussions must also take place to seek common understandings with stakeholder groups. Most parents have been educated in traditional schools and may not understand the impact of a different paradigm. Our participants expected that parents and community members would have deep concerns about a potential loss in quality of their children’s education and would “bombard” teachers with questions. Public engagement and consultation, as well as information sessions before and after implementation, are will be required to bring the public on-side with such a drastic change to the education system. Discussion groups again identified students from immigrant families who “are only familiar with traditional structures” as being most vulnerable in this change. If families do not adequately understand the changes in the system, undue pressure and “blame” may be placed on students or schools to continue to perform to expectations that exist only within the family unit, not by the system.

Our principal members will require immediate clarification regarding the impact of the redefinition on **funding model changes and student logistics**. There are very pressing questions about how the RAM will operate once funding is inevitably delinked from CEUs. Structures will need to be put into place to ensure that schools have adequate funding to deliver the programs in their schools. There may need to be a return to funding on a per-student basis rather than on a CEU basis. School administrators will need clarification regarding responsibility for management of students who are not following the “traditional path.” Will new positions be created to deal with this issue, or will position descriptions be altered to reflect this new reality?

Student perspectives on the redefinition of the use of time will allow enhanced flexibility in scheduling, particularly for those older students who are engaged in employment. There is the possibility for students to choose some break intervals between courses, or to utilize time

achieved through early completion for non-school-related activities. Delays in high school completion are probable for a significant number of students who will work at a slower pace than they normally would have been forced to work in the traditional system.

Teachers spoke of a concern for students' overall mental health, citing a number of areas that would require attention. Teachers have perceived a general increase in youths' narcissism over the past few years. Changing the system in this way will likely increase this trend. There are questions as to the future impact this will have on society. Students' social skills will also need to be examined. Teachers fear that, as we move into a more personalized educational setting, opportunities for group work will decrease, leaving some gaps in social skill sets. Our participants also questioned if the removal of a common pacing and time would leave students feeling less "anchored", resulting in a sense of abandonment and uncertainty.

On a more positive note, our discussion groups felt that students would value the ability to utilize the extra time provided by this change to access additional assistance from teachers and other support staff to complete their learning objectives. The ability to make their learning more relevant to them, and utilize their time more effectively, would be of significant value to student populations. If a redefinition of time were paired with structural changes to the education system including smaller class sizes and better access to technology, students would appreciate the opportunity to access greater individual attention in small groups and via a variety of media. Teachers again expressed concern that if students are moving at their own pace on their own content, then assessment by standardized tests becomes impossible. Assessment may need to move toward assessment of skills rather than tests evaluating content assimilation.

Performance-Based, Time-Flexible State Assessment

There was strong support for such a change in discussion groups during our orientation. Discussions surrounding teachers' requirements for change to be implemented centered around three areas: **governmental curriculum change, professional development for effective performance assessment strategies, and pre-implementation student development requirements.**

While the need for **governmental curriculum change** seems obvious, teachers commented that the level to which change would be necessary might come as a surprise to government officials. In order for performance-based assessments to be meaningful on a provincial scale, curriculum changes would need to focus on increasing the flexibility of the program of studies and requiring less *specific* knowledge in favour of promoting more *global* skills. Invariably, assessment tasks would fall to classroom teachers rather than government-generated standardized tests.

This leads directly to the request for **professional development opportunities that focus on performance-based assessment strategies.** Teachers want to prepare students as much as possible for success in formal assessment situations. Professional development that provides

educators with a wide variety of tools to assess students on a formative basis will better enable students to find success. This will serve to reduce both teacher and student stress levels. Session participants identified a particular need for professional development in the area of performance-based assessment strategies that would work in an online context, as this is an area where many in the discussion groups felt lacking.

With regards to **pre-conditions for student success**, teachers saw a need to train students in multiple communication strategies to be able to communicate their skills and knowledge in the manner various performance-based assessments might require, emphasizing collaboration, creativity and critical thinking. Despite the fact that it is unclear what assessment tasks will be required of students in redesigned assessments, student skill sets will almost certainly need to be diversified beyond those needed to complete standardized, traditional assessments. Teachers felt that these skills would be among the most important to ensure student success. Integrating these skills with curriculum change will facilitate the transition into greater personalized learning across the province.

Students will focus particularly on the flexible-time aspect of this assessment redesign, valuing the ability to complete assessments when they are prepared to do so, not according to artificial timelines. Initially, the changeover from traditional assessments will cause some distress, but teachers felt that this would eventually abate in favour of widespread recognition that performance-based testing is ultimately a much more fair assessment of students' true skills, knowledge and attributes. Assuming the implementation of other paradigms discussed above, students will almost certainly ask whether *they* will be able to choose the performance task that serves as a formal assessment of their learning. Students will also assume that, since they were allowed to progress through courses at their own pace, assessments will also have no set time limits. The province will have to very clearly set out the new rules governing assessment methods in order for students and families to be clear on the expectations well beforehand.

Equity in Access to Technology Infrastructure

Important in this topic is the distinction between “equity” and “equality”. It should be immediately recognized that not all schools or students will need “the same” technology (or access to technology), but rather, technology distribution must be made on the basis of *need* and individual student requirements. This theme is directly related to school budgets, and our teacher participants expressed a great deal of trepidation in the ability of the system to handle the technological requirements of personalized learning given current funding models in particular.

Teachers want boards first to realize that **technical support personnel are an integral and inseparable part of technology infrastructure**. A number of teachers cited *current* support levels as being inadequate to handle the volume of technical issues being experienced by staff and students, let alone the number that would be experienced after full implementation of personalized learning. One potential way to alleviate the need to hire additional personnel would be to also recognize that **professional development for teachers is an integral part of**

technology infrastructure. Teachers will be expected to understand how to operate a wider variety of tools, which will require time and training in order to facilitate student learning opportunities. While participants mentioned a number of specific pieces of technology during our orientation session, it became clear early in discussions that professional development would be an *ongoing* need, given the speed with which technology changes in today's marketplace. Students will expect **multiple platforms and a variety of tools to support their learning.** Teachers will need to be not only *aware* of the tools, but also highly skilled and competent in their operation.

A great deal of discussion focused on the **capacity to implement technology requirements in the CBE.** A number of session participants noted current problems, such as inoperable systems, as large roadblocks to increased access. Others mentioned network and bandwidth limitations as being an issue, particularly with respect to wireless capabilities. Some high schools experience such high volumes of traffic on their LAMP networks that students have given up attempting to connect to them due to extremely poor speed or completely blocked network access. Other roadblocks included the system's reticence to allow devices onto the network without being first set up by system technicians. While protection from network threats is an understandable issue, and teachers value the need for precaution to be taken, one teacher explained that the setup of a new laptop cart at their school has been postponed for more than a month, as the system technician has been unable to get to all of the new machines. Teachers repeatedly emphasized that functional, current technology is required for student success, and that access needs to be provided to this technology in a timely manner in order for the Board's investment in equipment to be worthwhile. **Funding** was identified as a capacity issue, with many teachers worrying about how "equity" would be calculated. Does the system have the capability to fund all of the technology requests that will be forthcoming as personalization becomes adopted system-wide?

Student expectations for equitable access to technology will be significant. Given the high degree of choice inherent in personalization, students will have an expectation that any technology they *request* will be made available. The expectation to be able to work on a platform of their choice will also be present.

The wide disparity in technology skills among students will become an issue for some when requests are made to use technology that the students themselves do not necessarily understand how to operate. Some students will be very technologically adept and others less so. Teachers will need to become leaders in the use of technology in order to remain current with their more advanced students and then to help advance the skills of those students who are less skilled. Once again the need arises for sufficient **professional development for teachers** to be able to work with all of the students for whom they are responsible.

Funding Models that Incentivize Completion

In this topic area, teachers had more questions about the transition than strategies or suggestions to help. The first question raised echoes the concern brought forward earlier – **that funding model changes must not hurt students**. With each students' needs being different in personalized learning, a basic per-pupil grant may not be adequate to either staff schools or meet student needs. This funding model simply will not stretch far enough to facilitate the goals of personalization. If one of the implications of personalized learning is an increase in field trips/excursions, a per-pupil grant does not contemplate this cost. Funding models that do not recognize the core principles of personalized learning will limit the capacity of students to choose, and in turn limit the educational opportunities promised to students by implementing this program.

Teachers worried that **incentivizing completion will lead to increased disparity between schools, teachers, students and communities**. High school completion rates are influenced by many factors. Not all of these can be resolved merely by introducing personalized learning. Participants wondered whether an incentive model such as this one would lead to an increase in “continual progress”, or a decrease in standards at the school level in order to ensure funding is achieved. This could disadvantage schools and neighborhoods where completion rates were comparatively low, making it harder to improve completion and result in a downward spiral of achievement. Concern was expressed that this may exacerbate the problem of “have” and “have-not” schools.

Further contemplation was given to the **future of programs with high transiency rates**. Unique learning environments such as Traditional Learning Centers, Immersion/Bilingual programs, Art-Centered Learning, Science School, girls- or boys-only segregated schools, Gifted and Talented Education, Advanced Placement, International Baccalaureate, and CBe-learn all offer unique and personalized instruction. Some of these programs have high transiency rates and would be put at risk if a funding model that incentivized completion were implemented. A number of teachers in this discussion group pointed to these programs as personalization options already built into today's school system and hoped that the value these programs brought to the CBE would be retained if a new funding model were brought forward by the provincial government.

Teachers believed that **students** were unlikely to notice a large change in classrooms based on new funding models, but this would be largely dependent on the impact funding had on student choice. Models that reduce a school's ability to provide enhanced choices and opportunities would be immediately criticized by students, as would models that adversely impact student-teacher ratios. Students should always be able to earn their credits and finish school, regardless of the funding model conceptualized by the province and the Board. This issue will have a larger impact on the school as an organization.

P-20 Continuum and Non-Grade Band System

To assist the government in making the decision as to whether or not to transition to this type of system, teachers offered some **questions they felt must be resolved before implementation**. First, teachers asked what the age limit would be for participation in “regular” schooling. Currently, we ‘force students out’ after they reach a particular age in favour of alternative educational settings. Will this continue to happen? Will there be modifications to these restrictions? What is the new timeline for completing one’s education? Is there going to be a timeline anymore? How can we tell students that they can complete programs using mastery/competency-based progression/pacing when we ultimately put a cap on how long they can take to complete schooling? To what degree will the government limit students’ moving to higher levels of education as fast as they are capable of doing? Will there be age prerequisites on any level of schooling?

Teachers in this discussion group also spent time considering the implications of **how a non-grade band system would impact instruction**. If common age is removed from the equation, are there tasks that teachers will not be able to ask students to perform if they are not yet at an appropriate developmental stage? While participants recognized that part of personalized learning is, indeed, allowing students to demonstrate their knowledge in a variety of ways, some outcomes in the program of studies are limited in terms of the variety of means possible to demonstrate competence.

Teachers also touched on **social issues** as another possible impact of a non-grade band system. Participants asked for professional development and strategies for dealing with social issues arising from having a wide range of ages and developmental levels present in the same instructional grouping. While this differential does exist in high schools currently, and primary schools have always experienced variance in developmental abilities, if not in age, the differences are expected to become more pronounced as this change comes into common practice.

Conclusion

Calgary public teachers support the principles of personalized learning. As professionals, Calgary teachers are willing to work collaboratively with the Calgary Board of Education to implement transformational change in the system to further the cause of enhanced student learning. Teachers place student needs at the forefront of the work that they do, recognizing that student needs are dynamic and unique to each learner.

While support was expressed on 2012 September 19 for the CBE's proposed AISI cycle 5 focus, a number of concerns were raised that should give the Board pause to slow down and consult with teachers in a deeper, more meaningful and ongoing manner, such that transformational change being spearheaded by AISI projects becomes lasting and sustainable change. Teachers have the capability to guide student learning into the twenty-first century based on sound research and proven teaching practices, but they require the support of school boards, parents, community members and government to make this a reality. Teachers also require *trust* to exist between all these groups in order to effect meaningful change.

A common theme throughout this discussion paper has been **professional autonomy**. Moving into an era of personalized learning will mean a greater reliance on the professionalism of educators to build strong teacher/student relationships that enrich the learning process. Likewise, students will come to rely heavily on the advice and guidance of their teachers in the student-driven learning process – school boards and parents must do the same. Teachers are the authority on students' educational needs; transformational change must, therefore, come from the bottom up in order for it to be sensible change that truly meets the needs of students in each unique learning environment. It is in this way that personalization of learning will *look different everywhere*, but still be characterized by the same common themes. It must ultimately be teachers and school-based administrators that decide how the themes of personalization are best implemented at each site.

Also common in these discussions was the need for time and professional development to ensure that the implementation of personalization is done appropriately, with minimal disruption to student learning. Teachers value working collaboratively with colleagues and find that it improves professional practice to do so. Reducing unnecessary workload in order to create time for professional learning communities and opportunities for multidisciplinary collaboration is essential. If personalized learning recognizes student diversity, then personalized teaching must recognize professional diversity by providing **professional development opportunities around the themes of personalization that meet the needs of every teacher**. This is critical to achieve transformational change.

Technology that supports student learning emerged as a theme in many of the elements of personalization, but it is important to note that technology should not drive personalization or learning. Student needs and student choice drive personalization, and will therefore, also drive the use of technology. Students will be the ones to decide when, where, and how technology needs to be accessed. It is the responsibility of teachers not only to be aware of the technological choices available, but also to be competent in their use as learning tools. For this to become a reality, teachers require support from the Board. The rate of technological change is staggering. A number of researchers have studied *accelerating technological change*, which dictates that change is occurring on an exponential curve.¹ The rate of change will only increase, and teachers will struggle to keep pace unless there is additional support, professional development and continual, sustainable access to these new technologies.

Teachers have a professional interest in finding innovative ways of attending to the needs of students in an era of globalization and technological advancement. There is a desire among our membership to be leaders in the conversation about personalized learning and to be engaged in all aspects of the transformation agenda. The emphasis here is on **leadership**. If teachers are expected to personalize learning for their students then they must be involved in the

¹ European Environment Agency, 2011. *The European environment — state and outlook 2010: assessment of global megatrends*. European Environment Agency, Copenhagen.

development of that personalization. That will necessitate the involvement of the profession at the front end of transformation rather than simply having this added on as yet another task. As with so many things, an effective implementation strategy will be key to the success of increased personalization of education in schools. Teachers look forward to opportunities to **work collaboratively** with stakeholder groups to improve education, enhance student learning, and to keep Calgary public schools among the best in the world on the leading edge of pedagogical practice.

Appendix A: Orientation PowerPoint

CBE DIRECTIONS FOR AISI CYCLE 5

Personalized Learning

WHAT IS PERSONALIZED LEARNING?

- *"Personalization refers to instruction that is paced to learning needs [i.e. individualized], tailored to learning preferences [i.e. differentiated], and tailored to the specific interests of different learners. In an environment that is fully personalized, the learning objectives and content as well as the method and pace may all vary."*
- *U.S. DEPARTMENT OF EDUCATION, 2010, P. 12*

DISCUSSION TOPICS

- Questions for consideration today are:
- 1) What do teachers require to implement and support personalized learning?
- 2) What will personalized learning look like from the student perspective?

FIVE ESSENTIAL ELEMENTS

- 1. Flexible, Anytime/Everywhere Learning
Tables 1,11 & 21
- 2. Redefine Teacher Role and Expand "Teacher"
Tables 2,12 & 22
- 3. Project-Based/Authentic Learning Opportunities
Tables 3, 13 & 23
- 4. Student Driven Learning Path
Tables 4, 14 & 24
- 5. Mastery/Competency-Based Progression/Pace
Tables 5,15 & 25

FIVE POLICY AND SYSTEM ENABLERS

- 1. Redefine Use of Time (Carnegie Unit/Calendar)
Tables 6, 16 & 26
- 2. Performance-Based, Time-Flexible State Assessment
Tables 7, 17 & 27
- 3. Ensure Equity in Access to Technology Infrastructure
Tables 8, 18 and 28
- 4. Funding Models that Incentivize Completion
Tables 9, 19 & 29
- 5. P-20 Continuum and Non-grade Band System
Tables 10, 20 & 30

SOURCE FOR THIS MATERIAL

- Software & Information Industry Association. (2010, November).
- Innovate to Educate: System [Re]Design for Personalized Learning; A Report from the 2010 Symposium.
- In collaboration with ASCD and the Council of Chief State School Officers. Washington, DC.
- Available at: <http://www.siaa.net/pli/presentations/PerLearnPaper.pdf>

SHIFTS REQUIRED IN EDUCATION DESIGN

- 1. **Assessment** – will need to move away from standardized tests to reflect the personalized learning experiences.
- 2. **Data** – we will need to move beyond solely test data. Teachers will need data on learning styles, preferences, interests and information on the whole child.
- 3. **Curriculum** – will have to be personalized to meet student learning styles and interests. Multiple sources of information will need to be accessible by the student.
- 4. **Technology** – students will need to have access to hardware and adaptive software that meet a variety of student learning styles and skills while matching the curriculum and learning activities.
- 5. **Educator Support** – teachers will need support and PD to be able to support personalized learning. Collaborative planning time, PLCs, and/or instructional coaches may all be necessary.

YOUR TASK TODAY

- Select EITHER → one of the Five Essential Elements OR one of the Five Policy and System Enablers
- In light of that issue and the education design changes that are required, discuss the two questions:
 - 1) What do teachers require to implement and support personalized learning?
 - 2) What will personalized learning look like from the student perspective?

Appendix B: Orientation Backgrounders / Recording Sheet

CALGARY PUBLIC TEACHERS
The Alberta Teachers' Association Local 38

Tables 1, 11 & 21

CSR ORIENTATION
Wednesday, 2012 September 19

What do teachers require to implement and support personalized learning?

What will personalized learning look like from the student perspective?

see over/

Essential Element

1. Flexible, Anytime/Everywhere Learning

Flexible, anytime/everywhere learning includes learning beyond a traditional school day or building through online or blended learning, hands-on opportunities in the community, and instruction offered by a range of teachers, experts, or technologies. Adding a virtual educator to digital content creates various models of blended and online learning to personalize the education for each child. These models can help better support students by offering learning opportunities 24/7/365 from anywhere so time can be the variable and learning can be the constant, as well as by providing access to courses and instructors often not otherwise available within the school. Several policies, such as seat time or Carnegie units, often restrict implementation of models offering such flexible learning time and place for online or blended learning and experiences in the community

Source

<http://www.siiia.net/pli/presentations/PerLearnPaper.pdf>

Essential Element

2. Redefine Teacher Role and Expand “Teacher”

Education leaders overwhelmingly agreed that the role of the teacher dramatically changes with personalized learning, as it emphasizes a shift from a single teacher delivering knowledge to his classroom of students to teachers as facilitators of learning, often as a part of a team of teachers with differentiated roles. While the teacher directed model has its place, this facilitator model is a significant departure from the way teachers have been trained to teach and learned through themselves as children. Included is an expanded view of the teacher to include not only school-based educators, but also other mentors in the community at-large who can support student learning. These mentors might include those from informal learning providers (e.g., museums, boys/girls clubs, businesses), social workers and health providers, scientists and other experts perhaps available online, and other tutors and teachers available in online learning communities.

Through further differentiation of the teacher’s role, student-teacher ratios and instructional relationships can be varied to meet the diversity of student needs. Symposium presenters Joel Rose (School of One) and Wendy Battino (RISC) explained how their models group teachers in teams that orchestrate what is best needed for each child. Changing the role of the teacher requires ownership among teachers and other stakeholders, job-embedded and sustainable professional development and training, and support in implementing the new approach or model of personalized learning. Teacher contracts and other regulatory constraints may also need to be addressed to provide the flexibility in a teacher’s role needed to make this dramatic shift in instruction.

Source

<http://www.siiia.net/pli/presentations/PerLearnPaper.pdf>

Essential Element

3. Project-Based and Authentic Learning Opportunities

Project-based and authentic learning opportunities can help increase the relevance of learning and improve students' ability to apply knowledge and use critical thinking skills. Education leaders view this as an instructional shift to one better able to incorporate meaningful content and 21st century skills and to meet the interests and learning styles of many students. Symposium participants generally agreed that project-based and authentic learning opportunities therefore can help increase student engagement and ongoing attention, which improves the likelihood of learning and achievement.

Source

<http://www.siiia.net/pli/presentations/PerLearnPaper.pdf>

Essential Element

4. Student-Driven Learning Path

Symposium attendees identified a student-driven learning path as synonymous to personalized learning. Such a model provides learning opportunities tailored to the expressed learning interests and abilities, whole child factors, schedule, and goals of the students. Although ensuring alignment and mastery of standards, each student's path may vary not only in terms of when and where learning takes place, but also in terms of the modalities and instructional strategies used, the pace and place of learning, and the types of courses and topics studied. In theory, an unlimited number of models exist depending upon each student's needs and interests, and the student-driven learning path may include opportunities for online courses, project-based learning, tutoring or small group instruction, formal courses and community-based learning, and any hybrid of these and other elements.

The School of One illustrates how technology – through online learning, online tutors, and instructional software (including games and simulations) – helps support each student's path. Inherent in this concept is *student-driven*, meaning that the student has more explicit control to design and determine their curriculum. Online or blended learning can provide access to courses not otherwise available, give additional help or support, and allow for learning at a time that works better for a student's schedule. Interestingly, this also led to discussions in breakout sessions about differing learning goals and assessments for students to allow their mastery of standards to be expressed and demonstrated in various ways, especially when considering the pace of work and form of assessments.

Source

<http://www.siia.net/pli/presentations/PerLearnPaper.pdf>

Essential Element

5. Mastery- or Competency-Based Progression/Pace

Mastery or competency-based progressions provide opportunities for students to work at their own pace and to reinforce a particular skill or standard until they have mastered the content. Students address standards at the time and in the manner that meets their needs, rather than being taught only when the entire group covers a certain topic. For some students, this may accelerate the pace of learning based upon abilities, needs, and interests, while for others this may require additional learning time and alternative instructional formats until the student masters the information. As such, competency-based learning is really the authentic implementation of standards-based education. The former requires proficiency before advancement, while implementation of the latter in most systems tends to keep time constant and learning variable.

Of course, mastery-based progression can be inhibited by the strict confines of grade/age banding. While grouping frequently occurs within schools, it is almost always limited to within a grade level, especially in elementary and middle school. For example, middle schools may offer both “regular” and “advanced” 8th grade language arts, but students are still clearly labeled as 8th graders and are all expected to meet the same standards in basically the same timeframe and to be assessed on the standards during a year-end, high stakes test given on a certain day. Most districts and schools redesigning their system to personalize learning move away from narrow grade/age level grouping policies as a key component.

Source

<http://www.siaa.net/pli/presentations/PerLearnPaper.pdf>

Policy and System Enabler

1. Redefine Use of Time (Carnegie Unit/Calendar)

Education leaders at the Symposium strongly rallied around redefining the use of time and the Carnegie Unit as the single most significant policy enabler for personalized learning. Many personalized learning models reverse the traditional model that views time as the constant and achievement as the variable. Traditionally, our education system is designed around seat time - the requirement that students may advance only with the required time spent physically in a school classroom for a particular Carnegie unit or course. These physical limitations of time and place can dramatically hinder the flexibility needed to encourage and enable personalized learning.

In contrast, a personalized learning model would support students in progressing on their own pace and schedule. Typically, if a student mastered Algebra I in one semester instead of two, seat time requirements may prevent them from receiving their required course credit, and most systems would not give them that opportunity to even demonstrate mastery until year's end. Seat time can similarly limit the ability of a student to take an online or blended learning course or participate in learning within the community with experts or apprenticeship-like experiences. Related policy issues are the fixed school schedule and calendar, which assume and limit formal learning time based around an agrarian calendar, rather than providing flexibility for 24/7/365 learning. Seat time policies are often closely contrasted with performance-, mastery- or competency-based approaches to learning.

Source

<http://www.siia.net/pli/presentations/PerLearnPaper.pdf>

Policy and System Enabler

2. Performance-Based, Time-Flexible State Assessment

Symposium attendees emphasized how much the timing and rigidity of current state assessments shape instruction and expectations, and they identified rethinking state assessments to be performance-based and time-flexible as critical to personalized learning. We know that assessment plays a significant role in what is taught in our nation's districts and schools – “teach to the test” and “if they don't test it, we don't teach it” – are common references. Primary are state tests, which are most often delivered to all students in a grade on the same material at the same time. Education leaders discussed that personalized learning requires a shift in this one-size-fits-all approach to assessments as follows:

- High-stakes state and other static assessments that occur at the same time for all students are unlikely to meet each student's needs. In a system of personalized learning, each student will likely be at very different point in the curriculum and standards on any given day, and thus a single testing date for all students may, for example, limit the ability of a student to progress more quickly if they have mastered the content.
- High-stakes tests most often included only a limited, one-size test item format that may not account for students' varied learning styles and abilities. Providing multiple, varied opportunities to demonstrate mastery better reflects student diversity and may more accurately measure achievement. Learning goals should go beyond content to include student communication, collaboration, creativity, critical thinking, and other skills that are often under-appreciated in our current accountability system simply as learning modalities.
- Technology provides many opportunities to expand assessments to include more dynamic options, including embedded or formative assessments, especially with online or portfolio options. This may also allow for personalizing the type of assessment depending upon the standards, content, and the child. This may include performance-based assessments, observations, or applications of knowledge in a group and will likely require flexibility in timing relative to both the time of the year and the age of the student.

While some of these assessments exist in certain forms – and federal Race to the Top assessment grants address several of these possibilities and challenges – current policies and practices generally present a challenge to this more flexible assessment system.

Source

<http://www.siia.net/pli/presentations/PerLearnPaper.pdf>

Policy and System Enabler

3. Ensure Equity in Access to Technology Infrastructure

While it may be possible to implement personalized learning without technology for a few students at a time or for a few lessons, education leaders overwhelmingly agree that it is almost impossible to bring the program to scale for all students without capitalizing on technology. This includes access to technology at school, home, and wherever learning takes place, including high-speed broadband, instructional applications, and related tools and resources. The flexibility and options central to personalized learning typically involve robust learning platforms, data systems, digital content, online/blended learning, and Web 2.0 resources.

Without reliable access to technology and broadband, teachers and students will undoubtedly miss the full potential of personalized learning. However, education policy still primarily budgets for technology as a supplemental expense, rather than as a baseline teaching and learning platform. Other regulations often limit the flexibility to use funds to achieve certain program goals through technology. These challenges are often more pronounced in high-poverty and rural communities seemingly lacking in fiscal resources, geographic access, and economies of scale.

Source

<http://www.siia.net/pli/presentations/PerLearnPaper.pdf>

Policy and System Enabler

4. Funding Models that Incentivize Completion

Federal, state, and local education funding is largely based upon student Average Daily Attendance (ADA), as measured by the number of students counted in their seats one or more times during the school year. This model predates online and blended learning, and apportioning funding for online courses taken outside of the district or the state often has negative financial consequences for the district. While online learning has exposed these barriers, these funding models may also create disincentives for a school or teacher to help advance a student faster than proficiency within a traditional or blended setting, or to provide alternative, off-campus learning opportunities.

Many districts and states have not yet fully considered or adapted funding policies related to personalized learning, so they are left wondering about the financial consequences of a student graduating early, dual enrollment in college, and students receiving services outside of the school building. Current funding models may also not account for the differentiated

roles of educators, including what, how, where, and when they teach. Supporting flexibility in teaching practices to meet student needs must be matched by educator compensation policies. Long-held funding policies often discourage or prohibit districts and schools from offering such personalized learning opportunities.

Funding models may also require a rethinking of resources. Symposium attendees asked, "What is the personalization ROI?" A personalized learning system enabled through a technology-based learning platform may be seen as more expensive than traditional models. But our current models may

be inefficient by teaching to the mean, failing to leverage technology, and keeping time and place fixed rather than leveraging anytime, everywhere learning opportunities. Symposium attendees agreed that further research and data are needed to document the budget impact of a personalized design, and to provide budget models that allocate resources in a more cost-effective manner than traditional models.

Source

<http://www.siia.net/pli/presentations/PerLearnPaper.pdf>

Policy and System Enabler

5. P-20 Continuum and Non-grade Band System

Education leaders at the Symposium understood that the traditional grade band system is often institutionalized by culture and expectations through the age-old question of "What grade are you in?" Performance- or level-based student grouping, rather than the traditional grade/age bands, is therefore a key policy component for authentic personalization of learning. The fact that students are all born within a preset 12 month period does not, and should not, dictate their abilities or performance at a given time (or age). While often controversial, working toward a P-20 continuum rather than being hindered by age and grade-bands opens the doors for personalizing learning for all students by helping to shift the role of the teacher, addressing the individual child's needs, and focusing on performance and mastery.

Source

<http://www.siiia.net/pli/presentations/PerLearnPaper.pdf>

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