THE FUTURE OF K-12 TRANSCRIPTS
The Comprehensive Learner Record

By Sanje Ratnavale
President, OESIS Network
January 2020
Comments on OESIS Innovation Report 2020

“I found this excellent paper, impressively comprehensive and systemic, linking a number of current educational trends into a coherent framework. These progressive ideas, represent a quantum (yet needed and achievable) transformation of educational credentialing.”

Jay McTighe
Educational Author and Consultant, including co-author of the Understanding by Design® series

“The Future of K-12 Transcripts report is itself a scholarly assessment of the purposes and direction of gathering documents and students’ portfolios showing their work to offer a far more rich demonstration of learning competencies and experiences than the traditional transcripts of the past. As schools adopt the new methodologies and expand the scope of what and where and how students learn, the educational landscape itself will be expanded and enriched.”

Pat Bassett
President NAIS 2001 – 2013

“Every educator recognizes that students learn deeply beyond the classroom and from the co-curriculum, and that many critical aspects of their growth and preparation are entirely unrecognized by our current forms of crediting, records, and transcripts. This important report makes the case and shows the way forward for a new transcript format and platform that will better capture and convey the breadth of student learning and better enable schools to fashion learning that engages and empowers every student.”

Jonathan E. Martin
Consultant and Author, Reinventing Crediting for Competency-Based Education

“The time has come to standardize on a flexible mechanism for schools, universities and employers to differentiate, record and understand human learning and achievement. Such a mechanism will enable a range of organizing innovative constructs as discussed in this paper. But it must also enable efficient administration by leveraging advanced web technologies.”

Dr. Rob Abel
Chief Executive Officer
IMS Global Learning Consortium

The Comprehensive Learner Record
## Table of Contents

I. The Currency of Education in Context ........................................ 4

II. 20th Century Hangovers ............................................................ 6

III. Equity Impact of Competency Based Approaches ............ 8

IV. Key Tenets behind Comprehensive Learner Records .... 14

V. Systems & Pipes in the Ecosystem .............................................. 17

VI. Pivoting to a 21st Century Transcript ............................. 22
1. The Currency of Education in Context

In the Micronesian island of Yap, the Rai stones, shown on the cover of this report, were the main form of currency. The labor to make them increased and they grew in size and thereby value in the minds of the islanders. But why did they cease to be a currency and where was the real value in an ever-larger cumbersome object with a hole in the middle? The Rai currency represents a good analogy for the currency of education today, bookended by the time and labor spent on learning and with little understanding that the exchangeability, portability and thereby liquidity of a currency determines its value. As the photo below shows, the value of the Rai currency was actually its hole. Why? Because that was the delivery or exchange system, taking as it did a large tree trunk and a number of men to carry it to its destination for exchange. Everything but the hole changed over time and similarly today the world of education faces the task of changing its delivery/exchange attributes to make its currency more meaningful.
Ask yourself then, as I did with a group of high schoolers in a class I taught on macro-economics and the financial system, “what affects the price of money?” Flummoxed at the beginning by this question, thoughts of how nice they were to their parents, they knew, was not the answer I was looking for. Having lived through the extraordinary financial crisis of the last decade, we know that the primary determinant is the Interest Rate because it affects the delivery mechanism. How exactly? The interest rate is the high-octane fuel of opportunity because when it is lower, the Federal Reserve is essentially injecting opportunity into the whole system. For banks their cost of lending is lower and so they will lend more, for companies they take those loans and invest more, and for workers they have the opportunity to earn and spend more. One extra dollar lent, cascades and multiplies through the system creating and exchanging more and more opportunity and agency.

Is there an equivalent to this in the currency of education? Yes, there is and rather than a rate of interest it is the “Interest Rate” of the student. What effects that Student Interest Rate is opportunity and the high-octane fuel driving that opportunity is Equity. Equity represents, at the student level, equal opportunity and for every student that is a very different context: a context that must recognize the many influences cognitive and non-cognitive, cultural, and socio-economic, inter alia, that represent their starting points. Equity does not mean merit nor does it mean fairness or justice or inclusivity: it means opportunity in context and it is best measured by growth alongside proficiency. This notion of student opportunity or equity, in the same way as interest rates drive growth in the overall economy, drives mindset, agency and productivity in the student.

Unfortunately, there is no magic committee like the Federal Reserve in education that can drive the Student Equity Interest Rate and transform the massive highly decentralized and diverse education system of the U.S. with a rate adjustment that cascades opportunity and agency through the learning economy. The rate adjustments that have been provided at the Federal umbrella level have tried to increase opportunity through accountability and standardization, neither of which have had much effect on the equation. Schools have vastly different resources; communities have massive discrepancies in access to teaching talent and thereby their abilities to access equity for their students. Nevertheless, we explore in detail how we can make significant advances in that equation towards greater equity by fundamentally re-charging and adapting many of the inputs and outputs behind the Transcript forms that exist in the world of education.

“Sanje has been pointing the way toward the future of education for years. This compelling report, among other strengths, reframes how equity can be achieved through use of these emerging Transcripts. A very deep dive that’s worth the effort.”

John A. Drew
Head of School
The White Mountain School (NH)
II. 20th Century Hangovers

When we discuss the currency of education further in this report, we are referring to the record of learning in whatever portable, exchangeable and utilizable form it takes: a report card, a transcript, a credential, a badge or a diploma. We are seeing the beginnings of an educational revolution and we must first identify the legacy characteristics that may need to be recalibrated in the new forms of currency that emerge.

1. Ownership of all Student Learning by the School

As opportunities for learning explode outside the strictures and structures of school walls and schedules, the equity of any new educational currency must see schools as members of larger ecosystems rather than walled gardens of their own. In this century, not everything will have the imprimatur of a dominant school brand, as students access online opportunities, experiential partnerships, and internships that feed into their learning journey. The school may become the prime contractor or manager of a school culture driven by values and outcomes that are accessed within and outside of a school. The question that arises will be the degree to which schools recognize, validate and “print” learning outcomes from the ecosystem rather than their own school, or will there be a way for students to capture a holistic picture on their own? Will schools consider it important to adopt a learning hub approach to the many needs of their students and will that show up in the way they exchange the credentials of their students?

2. The Evidence is the Sequence or the Standards

In the 20th century, we lacked the ability to provide links to portfolios of evidence that we have today, and a number of proxies served as tools of equivalence behind measurement. Standards and course sequences stood strong in filling this gap, but it is time to recognize that we now have the ability to actually provide at scale more granular indicators of performance. Will the transcripts of the future then move from the thin-edged parchments of yesteryear to deep representations and repositories of performance artifacts, accessible at scale and validated in distributed forms?

3. Accountability too easily tied to proficiency

The accountability for the currency of education was placed squarely into the hands of teachers and schools in the 20th century because they were responsible for all aspects of the delivery systems. We are seeing the beginnings of this change as schools move towards greater focus on growth in the context of equity. As student equity increases through pedagogical and curricular opportunities, the systems of accountability that narrowly focused on standardized yardsticks such as cohort proficiency levels will be replaced by a greater focus on growth. Proficiency used to be considered a form of growth because it nicely packaged growth into stages of development or age-appropriate sequences, but growth tied to equity breaks out of these nice curricular slices of grade levels, course distinctions and tracking levels.
Colleges are looking at achievement in the context of opportunity or equity and thereby the ability of the currency to capture growth will be key. Student agency and meta-cognition of their learning journey will then drive a currency rather than benchmarks of expected time-based achievement. Skill frameworks, portfolios, micro-credentials will be important tools in this emerging landscape.

4. **Transactional Transcripts**

The 20th century nicely packaged learning into product endpoints with an opportunity for seamless exchange at set staged intervals. The context they show represents an adherence to a B2B or institution to institution pipeline, whereby the learning nicely ends and begins again. They saw the Transcript as a one-time use transaction that was never needed again as students move onto the next one-use transactional credential.

5. **Repositories of Academic Achievement Only**

Schools have evolved into a series of lines. Verticals, split between academic and co-curricular domains, are nicely sequenced by grade levels with their tightly packed standards of progression that conform to the curriculum adopted. Students when asked to think about school, think about their schedule. And so, it is natural that the Transcript reflects that schedule, with the academic vertical of prime importance because it is the driver of the schedule and the place of formal assessment. But surely, don’t we send kids to school to develop social and emotional confidence too? Where is that? Increasingly it has become the domain of the co-curriculars, a place of limited formal assessment, if any, and a secondary priority in the schedule. Social emotional and non-cognitive skills are key determinants of engagement and thereby achievement: we have all woken up to this reality in the last 20 years as high rates of anxiety and depression pervade our schools. And we now know that anxiety and stress inhibit learning when they exceed the healthy level of discomfort. The Transcript of the past focuses on academic achievement and ignores one of the central reasons we send kids to school, to develop their emotional intelligence. Is it measurable? Do colleges and other consumers want to see growth in these areas? Should the student himself/herself have a measure of their skills?

We highlight these areas for a reason. They are all factors in the control of the Transcript and thereby the currency of education by the institution and the policies that drive it as a whole. The value of the student is subsumed by the needs of the school population at large and thereby equity becomes a community value rather than a personal opportunity. The question is: can there be a balance between the needs of equity at large and the needs of a student, a recalibration that allows greater student equity in the transcript itself? We think so.
III. Equity Impact of Competency-Based Approaches

We see the entrance of competency-based education into the mainstream of K-12 education as a very positive development for the overall currency of education and its effect on learner records and equity. Competency pathways and credentials represent an immediate upgrade to the path to equity because they often allow voice, choice and different starting points for the students, particularly when paired with project-based and SEL contexts.

However, it is important to note that the currencies that these competency pathways provide will have dramatic differences in equity or opportunity. The individual resources of the school will still be the primary determinant of opportunity at a student level. And so, consumers will continue to look closely at the attributes of the schools, demographically, socially, culturally, historically in its graduate profiles and achievement levels, as well as its economic resources.

So, let’s look at different contexts:

1. CBE in a K–12 Career Readiness Context

Some schools have formulated pathways for their students that tightly align with the 21st century values and competencies they see or the employability skill standards of companies looking to hire as early as high school graduates. The graphics on the next page show just such an example from Escondido Union High School District near San Diego which has developed Competency X career pathways aligned with outcomes for the local hiring needs of the biotechnology community. Badges open to show deep evidence in the form of the skills required and embedded in a pathway along with links to evidence of performance.

“In our K-12 learning environment, we’ve discussed for years the need to shift the conversation about student progress — away from mere acquisition of points and toward a more holistic picture of a child’s growth over time. As we work with students to help them grow holistically and own the currency of their learning, transparent reporting is the key to making that mental shift happen in our schools. The Future of K-12 Transcripts shows the way forward with clear models that can work. This report takes the abstract and begins to make it tangible, providing the breakthrough we need to move that conversation about student progress forward.”

Kris Gilbert
Director of 21st Century Learning
Cincinnati Hills Christian Academy (OH)
Analytical Techniques: You can create a representation of a data set to help someone understand an experiment.

Planning: You can systematically identify the parts of an experiment to better understand how it was planned to answer the research question.

Skeptic: You view pop-science stories with a skeptical eye and understand the evidence behind the headlines to make educated decisions about issues.

Safety: Safety is more than just avoiding injuries in the laboratory or the workplace. It’s about ensuring you deliver reliable results.

Self-Directed: Use unfamiliar instrument literature to set up and operate a necessary tool for science and engineering research.

Planning 2: You can plan an investigation appropriate for a research question and critique experimental designs.

Analytical Techniques 2: You can master many instruments in biotechnology by being able to create and use standard curves.

Self-Directed 2: You can critique a popular science story by using primary source research.

Self-Directed 2: Read a protocol and follow it to produce a replication and plan steps to get to a solution without outside assistance.

Competency X: Escondido Union High School District and the Assessment for Learning Project
2. **CBE in a Disciplinary Academic Proficiency Context**

Regardless of what we want to do to maximize equity, we have to play well in K-12 with others and that means accommodating colleges that are likely to remain structured into academic disciplines for some time, as well as state and Federal requirements for public schools. It is also naïve to think that professions and careers do not require deep content knowledge, and everyone can survive on a diet of generalist competencies. Competencies in STEM or in the Arts have not suddenly become antiquated because we have better means of accessing content. The consumers of our student skills in the form of colleges and employers would certainly agree. Therefore, we strongly believe that the Transcripts in education must accommodate such discipline-focused competencies. Such competencies and pathways often have sequential aspects with proficiency levels tied to them, even if they have more cross-curricular integration.

3. **CBE provided with different assessment regimens**

Let’s begin with assessment regimens that dovetail with standards-based competency approaches. A good example is what is known as standards-based grading, used for assessing proficiency of standards and skills that are transferable, particularly vertically through a disciplinary sequence. Students are provided with a choice of assignments tightly aligned with standards and progress when they achieve competency in their assessments with no letter grades or percentages awarded: teachers build large formative banks of assessments so students have multiple options to succeed and failure is at worst temporary. These approaches provide flexibility in pacing, look at formative intervention as the core of the pedagogy and enable a limited form of student agency, as standards of proficiency are met. They are often paired with blended or online learning or flex model pedagogical contexts.

Competency Works, in its 2017 Report, *Quality and Equity By Design*, makes a very valid point, however, on their effect on achievement: “schools that try to increase transparency with standards-based grading, but fail to build the capacity to cultivate a growth mindset and provide greater instructional support to respond to struggling students, are unlikely to see higher engagement or achievement.” To access the benefits of a more apparently equal opportunity playing field, the school still needs to have the resources to build teacher talent for dynamic intervention at the time of student productive struggle. Let’s dig into that word transparency above. What is being said is if a learner is told that in a certain equation they made a conceptual mistake as opposed to a computational mistake, that is helpful but may not move the ball on learning; the mistake may indicate all kinds of conceptual gaps that need to be filled with “greater instructional support.” It is during this intervention that transparency has the greatest value. With standards-based grading, the learner is encouraged to continue struggling to the degree they have the resilience to do so (as opposed to moving on to the next topic) and of course this is a good thing to the degree that the teacher is able “to cultivate a growth mindset” as the quote above reiterates. This is not news, as schools have been struggling with heterogeneous classes for decades. Every so often some new methodology comes into play as the panacea for the problem: more recently it was blended learning, and now eliminating letter grading.

It is not, therefore, in our minds simply the assessment system behind the particular context of competency-based education that affords the equity. In other words, competencies can equally be achieved by many assessment paradigms from letter grades or percentages to deep rubrics with point scoring, some providing the student with more visibility or transparency, but ultimately the calculus on achievement with
equity is more complex than the grading system alone. Some Transcript approaches have focused on the assessment paradigm behind competency-based approaches as the primary determinant of equity, but these approaches confuse transparency with equity.

4. CBE focused on Cross-Curricular Skills and Competencies within Proficiency Umbrellas

Cross-curricular approaches as exemplified by organizations like the Great Schools Partnership that runs the New England Secondary Schools Consortium, and the League of Innovative Schools in all six New England states, represent a further level of access to opportunity. These large-grain size Competencies like Communication, Collaboration and Critical Thinking provide a hierarchy of learning outcomes and performance indicator-driven rubrics that can cut across academic and co-curricular programs. The GSP combines this with graduation proficiencies to provide a framework for schools.

Such frameworks provide greater equity and opportunity in a number of ways: they enable PBL because without such a framework it is difficult to tie the assessment to anything other than disciplinary standards. By doing so they allow the student to approach the project from their own starting points, rather than a prescribed sequence, filling in their needs for skill and content knowledge with the teacher and their peers in support. Student agency is taken to another level. They also enable social-emotional learning because competencies like empathy can be modeled and permit students to demonstrate competency through artifacts that can be assessed.

www.oesisgroup.com
As social emotional learning grows in importance and can be validated, competency-based education is leading the student record into cognitive and non-cognitive domains. Pathways will emerge that look across the curriculum for opportunities, that are driven by the student but are broadly defined by the school in the form of a menu of opportunities. The charts below imagine such a pathway providing student agency and meta-cognition of their learning journey that no longer sees it as defined just by a schedule. The Competency Pathway is a key 21st century invention because it provides the integration of the program, a student-driven route through a tightly sequenced structure built over decades, and a self-delivery system. The challenge we have then is to channel this into a record of student learning that represents the opportunities in context. Competency Pathways require articulation in the form of taxonomies of sub-skills, assessment paradigms like potentially (but not necessarily) rubrics of performance indicators, learning outcomes tied to these rubrics, pre-requisites in the form of previous pathways or badges, and more. Just as national standards of online learning emerged in the last decade, PIVOT is examining building a set of open national standards for pathways that can be used across the many approaches to competency-based education and can reflect a national consensus: reach out to us if you are interested in participating in this effort.
The two slides below break down a communication pathway that might be imagined. The first a set of sub-skills are articulated in the black boxes and underneath a set of performance indicators. These then provide the assessment backbone to the pathway and also provide a student with a sense of the key elements of the skills they are looking to demonstrate.

In this second slide the design process moves on as teachers and the school identify a series of assignments currently in the Program or projects or experiences that they want the students to focus on as opportunities for showing performance. It is, as with our equity approach, the students themselves who may choose the opportunities they consider appropriate for their own starting points. The school defines a minimum set of opportunities so that the performance is shown to be not simply a one-time achievement but also transferable and thereby enduring.
IV. Key Tenets behind Comprehensive Learner Records

Before examining the systems, strategies and examples of Comprehensive Learner Records, let us then summarize important tenets behind a new 21st century approach to student records:

1. **B2B and B2C** — The Transcript must not only work in a B2B (business to business or school to school) context but also serve the student in his/her learning journey (and thereby enable a business to consumer [B2C] context too). We also live in a world where data is the ultimate commodity and student data must be in the ownership and command of its creators — both the student and the system that records and validates the actions are causal agents. We examine some of the pilots taking place across the country below in the next section that includes a CLR wallet.

2. **Hubs** — As learning becomes distributed and schools are no longer walled gardens, they should see themselves as hubs of student learning, capable of using external validations for their own prerequisites or their lack of resources. Evolution into a hub is a natural place for a school as they become the arbitors of quality and value.

3. **Holistic Snapshots but with Depth** — The ability to link deep evidence provides consumers of records with depth and so less in the form of a summary PDF is no longer more. More can be embedded in less, even if it’s just a pdf. Badges these days can open to show the pathways of learning, tagged skills, team mates and most importantly the validator and the criteria used to evaluate performance.

4. **Equity and Growth Require Context** — Achievement is no longer simply a function of proficiency because the starting points and opportunities that both a school and a student bring to the table are important indicators of relative opportunity and agency. Does a student in a rural setting who has to travel...
90 minutes without wifi to get to and from school, have the same opportunity for growth and proficiency as another when doing homework? The differences are endless and that is why this equation becomes even more imperative.

5. **SEL** — Cross-curricular skills mean not only transferability across and up academic grade and age appropriate sequences but also transferability in social and emotional contexts everywhere. These skills have risen in importance and research exists now to validate their importance in engagement and thereby achievement. Students’ abilities to reflect on their experiences, to be assessed in their context, to develop a meta-cognition of their differences, challenges, gaps and achievements is changing the opportunity and the Ed Tech ecosystems are prime players in this dynamic. In the OESIS Learning Innovation Report 2019 we surveyed 150 schools on what they thought would be their four most important curricular and programmatic selling points. See the Table below:

<table>
<thead>
<tr>
<th>Item</th>
<th>Overall Rank</th>
<th>Rank Distribution</th>
<th>Score</th>
<th>No. of Rankings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent Social Emotional Environments</td>
<td>1</td>
<td></td>
<td>279</td>
<td>102</td>
</tr>
<tr>
<td>21st Century Experiences</td>
<td>2</td>
<td></td>
<td>208</td>
<td>77</td>
</tr>
<tr>
<td>Teacher Knowledge &amp; Experience 3</td>
<td>3</td>
<td></td>
<td>175</td>
<td>69</td>
</tr>
<tr>
<td>Course Choice &amp; Breadth</td>
<td>4</td>
<td></td>
<td>165</td>
<td>62</td>
</tr>
<tr>
<td>Student Driven Curriculum &amp; Program</td>
<td>5</td>
<td></td>
<td>158</td>
<td>62</td>
</tr>
<tr>
<td>Small Class Sizes</td>
<td>6</td>
<td></td>
<td>135</td>
<td>58</td>
</tr>
<tr>
<td>Peer Collaboration &amp; Community</td>
<td>7</td>
<td></td>
<td>122</td>
<td>57</td>
</tr>
<tr>
<td>Timely Teacher Intervention &amp; Feedback</td>
<td>8</td>
<td></td>
<td>107</td>
<td>47</td>
</tr>
<tr>
<td>Educational Technology</td>
<td>9</td>
<td></td>
<td>56</td>
<td>29</td>
</tr>
</tbody>
</table>

Please rank in order what you think will be your four most important curricular and programmatic selling points in five years.

6. **Grading Systems** — Grading systems can provide greater transparency and even greater growth, but they are not inherent carriers of equity. Records should therefore accommodate many grading outputs. This is why it is particularly important for pathways to emerge because it is unrealistic to expect rubric development, which provide the greatest transparency, to take place overnight.
Meet Sanje Ratnavale

OESIS President and Co-Chairman of PIVOT Transcript Partnership

Sanje founded OESIS in 2012 and serves as the President of what has grown to become the leading network for innovation at independent schools (with now over 600 participating in our research, conferences, cohorts, PD platforms, career placement and consulting): the acronym OESIS grew from the initial focus on Online Education Strategies for Independent Schools. He noticed that independent schools lacked both a highly collaborative national network for faculty and a pedagogical growth mindset, as many of the associations moved over decades to governance, leadership or accreditation focus and a celebration of supposedly timeless inputs. Recently, Sanje has helped found and launch a new initiative called PIVOT, a non-profit partnership between IMS Global Learning Consortium and OESIS, which aims to help schools advance 21st-century designs of digital transcripts: comprehensive records that capture more student learning from competencies to skills and more.

He has held senior administrative positions at independent schools including Associate Head of School at a K-12 school for seven years, High School Principal for three years and CFO for seven years. Sanje has taught Latin and History at the High and Middle School levels: his educational career spans both British (Windlesham House School in Sussex) and American (Marlborough School in LA and Sierra Canyon School in LA) independent schools, schools that are boarding, single-sex and co-ed institutions respectively. He was one of three founding administrators and the financial architect of a brand new greenfield non-profit independent school built on the outskirts of Los Angeles into a K-12 institution with 850 students, a 35-acre campus and $80 million in assets during his seven-year tenure: Sanje led the raising and management of $60 million for the project from investors. Prior to making a switch to education, Sanje spent 15 years in venture capital, investment banking and senior C-level (CEO, COO, CFO) management. He was educated at Christ Church, Oxford University (B.A. and M.A. in Law/Jurisprudence) and the British independent school system (Harrow School). Sanje is based out of Santa Monica.
V. Systems & Pipes in the Ecosystems

In the next section, we need to look at various systems that capture the information and the roles they play.

1. **Portfolios** — The emergence of the student digital portfolio, as the record carrier of evidence and performance artifacts, is the central new system in the 21st century learning architecture. By itself, it is no more than a binder, but when the portfolio can talk to other systems that are carriers of content, scope or sequence, it becomes a central tool of student agency. The portfolio has emerged as a tool that is student/parent owned and controlled; it can travel from school to school and connect as appropriate. It has also become a professional social tool that students can use to collaborate with peers or teachers and have full control of their privacy. Unlike other professional networks, the student portfolio is more than a resume: it can serve as a deep repository of projects and learning pathways. These 21st century collaborative portfolios then provide their own transcript to the degree that the pathways, credentials or badges they contain are validated.

A 21st Century Student Portfolio captures assignments from courses, projects, experiences, badges and pathways.

Portfolios offer students the ability to generate their own Co-Curricular Transcripts with the hyperlinked badge, pathway and project evidence, and the facility then to upload customized snapshots of themselves into admissions application portals.
2. **Pathway Engines** — Unlike a course that is tightly sequenced, a competency pathway has entered the scene. In fact, the competency pathway has emerged as a **parallel complement** to the traditional course. Schools prescribe a series of opportunities in the form of assignments or skills from which students may choose.

**Leadership In Environmental Advocacy Pathway**

### 1. Ascribe Learning Outcomes

| Milestone 1 of 5 | Leadership for Sustainability |
| Milestone 2 of 5 | Critical Thinking |
| Milestone 3 of 5 | Ecological Integrity |
| Milestone 4 of 5 | Service Learning |

<table>
<thead>
<tr>
<th>Learning Outcomes</th>
<th>Institution Level</th>
<th>Program Level</th>
<th>Course Level</th>
<th>Settings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 2. Formulate Student Opportunities

- **Science Data Research**
  - Course Assignment
- **Creative Writing Portfolio**
  - Course Assignment
- **Farm Management**
  - Course Assignment
- **Service Learning Training**
  - Course of Training Completion
- **Community Project**
  - Previously Completed Pathway
- **Managing a School Club Experience**

### 3. Establish Yardsticks of Transferability

- **At least 7**
  - Leadership for Sustainability
- **At least 6**
  - Critical Thinking
- **At least 5**
  - Ecological Integrity
- **At least 4**
  - Service Learning

**Other Requirement**

- **At least 3**
- **At least 2**
- **At least 1**

### 4. Choose Grading Systems

- **Rubric**
- **Numeric**
- **Star Rating**
- **Letter Grade**
- **Pass/Fail**

### 5. Determine Badges and Recognition

- **Managing a School Club Experience**
- **Service Learning Training**
- **Creative Writing Portfolio**
- **Science Data Research**

### 6. Choose Reviewers for Submissions

- **Team Members**
  - [Profile Image]
  - [Profile Image]
  - [Profile Image]
  - [Profile Image]
OESIS is an Innovation Network of 600+ Schools.

Explore how you can participate in our Research, Conferences, Faculty Cohort Pathways, Platforms and Recruitment
By meeting minimum thresholds of requirements and submitting evidence from linked E-portfolios, students demonstrate competency in an area. These pathways frequently come with embedded assessment engines that allow teachers and schools to use rubrics, grades, star rating and more to validate performance. So that they can integrate their programs, these pathways allow teachers to link some of their current assignments or projects into the pathway as opportunities: by completing that assignment once in the pathway the collaborative link synchronizes the assessment in both the pathway and the LMS gradebook. Pathways enhance student agency and provide greater meta-cognition to the student as most focus on skills in an area rather than a purely disciplinary sequence of topics.

3. **Badging** — Badges provide discrete waypoints on pathways. They make a claim about an experience, an ability or a competency, and provide associated evidentiary documentation to support the claim. These can be imported into other systems. Some systems integrate portfolios and pathways with badging engines or third-party credential providers.

### OESIS Faculty Professional Development Pathways

OESIS cohort pathways run every two months with feedback from OESIS Network Leaders
- Competency-Based Education (Intro and Unit Developer)
- Project-Based Learning (Intro and Unit Developer)
- Social Emotional Learning (Intro and Unit Developer)

Coming in 2020:
- Critical Thinking & Argumentation
- Grading for Transparency & Opportunity
- Integrating Cultural Competency into the Program
- Integrating STEAM into the Program
- Leveraging Social Media for Learning
- School Ed Tech & Data Ecosystems

4. **Gradebooks** — Traditional gradebooks have also been evolving to accommodate competency, proficiency and standards-driven ratings paradigms. Many learning management systems have multiple tandem grading systems.

5. **LMS** — The traditional Learning Management System is now a very established system for managing course content, course assignments, course grades and academic submissions. They are teacher-driven and ideal for sequential learning. They connect with portfolios, pathway engines, and a whole host of ed tech tools that students can use through LTI (an IMS Global connectivity standard).

6. **SIS** — These systems often house all the personal data on a student from enrollment to coursework, transcripts and more. As the data being stored about students and student progression evolves, the SIS also has to evolve.

7. **Hubs** — In a world where students increasingly complete courses outside the domain of their schools, schools find themselves with a need to manage and validate a multitude of outside coursework. Increasingly schools are building credentialing hubs to store the data that is coming not only from these systems but also from the outside. Schools may need to not just be capable of using external validations but also need to become more effective evaluators and judges of external validations.
Below is a simple depiction of the ecosystem.

IIMS GLOBAL
Learning Consortium

Workflow for Credential Management

“This is a powerful report on student equity, CBE and assessment opportunities. It has the capability of impacting a wide range of readers. The OESIS pathway and portfolio work has powerful potential for students and schools. As an independent, college-prep school, San Domenico is particularly interested in the evolution discussed in the last section, including even short-term impacts on student profiles in college counseling admission portals.”

Kate Reeser
Director of Upper School / Assistant Head for Academics
San Domenico School (CA)
VI. Pivoting to a 21st Century Transcript

Oscar Wilde is said to have remarked, when asked whether he had anything to declare at the border, “Just my brilliance.” We need to find ways to identify, digest and validate such assertions. This has been the role of the IMS Global Learning Consortium, the leading non-profit advancing technology interoperability for colleges, K-12 schools and districts. Its latest partnership called PIVOT focuses on three main elements of that strategy: capturing and storing learning (CLR: the Comprehensive Learning Record standards), correlating learning outcomes (CASE: the Competencies & Academic Standards Exchange), and transferring digital credentials with deep evidence (Open Badges standards).

So, what exactly are standards, in a technology interoperability context? Essentially, they are communication protocols that allow seamless handshakes of data. They enable distinct systems, built in different ways, by different software developers, and even using different languages, to understand each other — in effect to understand each other and to communicate with the same grammar and even with the same accent. They allow various participants in the ecosystem to make “assertions” for validity from others that they trust and are connected to. Unlike the old world of PDFs, this makes the Learning Record customizable by consumer or owner or generator.

IMS Global Learning Consortium acts like a 21st century accreditation vehicle, so schools can be comfortable knowing that systems that embed these standards can communicate and thereby enable the visions they have for their students and their records. These standards place the burdens on the system providers, so that ideally the school can avoid custom installations and development expense to extract learning objects before presenting them. Such embedding usually takes several weeks of dedicated development time for vendors to implement. The role of PIVOT is to accelerate these processes and adoption. In this way, pilots like the one diagramed at Broward County (the 6th largest school district) below can be replicated across our schools and networks.

Over the next five years, we see the K–12 Transcript evolving to include cross-curricular skills and competencies, providing links to evidence contained within portfolios, pathways and badges, validating leadership, SEL, PBL, and experiences in many co-curricular domains, and integrating more closely with college counseling portals, application systems and credential hubs so that they are customizable, searchable, and more holistic.

We see the evolution taking place in the following ways and timeframes:

1. PDF Transcripts with Cross-Curricular Skills (Timeframe: present to 18 months)

   The Exemplar High School Transcript of the Great Schools Partnership shows that we are moving towards including Cross-Curricular Skills in summary parchments of achievement. Note that these have GPA levels next to them. Schools are already looking at cross-curricular skills within their purely academic coursework (transferable, by way of example, from Biology to Physics in a set of Science Skills), but increasingly schools that look at embedding competencies across their whole Program see these skills being demonstrated in the co-curriculum too.
These Cross-Curricular Skills will have hyperlinks over time. Colleges or feeder schools will by clicking see further evidence and a breakdown of how the requirements are met.
2. Co-Curricular Transcripts with Pathways/Badges (Timeframe: present to 18 months)

The PDFs that Portfolios with validated pathways can generate, provide links to the achievement route taken, the outcomes targeted, and the actual evidence. These PDFs can be uploaded into other college applicant systems easily but now with deep links to credentials that are actually generated by a school, in the same way as a course grade, using Open Badges standards.

In November 2019, by way of example, the National Association of Secondary School Principals (NASSP) partnered with Credly to offer digital credentials to student members of the National Honor Society and the National Junior Honor Society. These badges can be imported into Portfolios and then co-curricular transcripts.

With K–12 enrollment becoming competitive not only between independent schools but also within the public school system where entrance to magnets and charters and online schools are not always guaranteed, the validated pathways of portfolios will become increasingly used within K-12 itself. We think the Portfolio will also become a better source of information for families about the Program of a school than shallow representations of websites: stealth applicants to independent schools are increasingly using social media to garner information about the real quality of a school rather than admissions tools canned for them: the portfolios of the students at those schools can become professional network tools to showcase student work product, and what better marketing tool is there than that?

In Portfolium, the solution we support for the OESIS Network, a school can click on a badge link (as shown above) and the viewer can get a complete picture of the skills and pathway behind the credential. The pathway and badge above is one issued to an OESIS Network Leader for the completion of an OESIS Introductory Pathway on Competency-Based Education. Many OESIS schools are now using badge pathways for faculty professional development.
3. **College Counseling Application System Student Profiles** (Timeframe: one to three years)

College Admission Application Systems already have thousands of colleges connected to their databases and they provide admissions officers the ability to sort and search candidates by a whole host of attributes. It will not exactly be difficult for these systems to extract or input pathway, credential and competency data from open badges and pathways found in e-portfolios, credential hubs, and co-curricular transcripts. They could even ask students to input the pathway and badge urls with all the evidence and validation. Once they have been extracted or input, colleges should be able to sort applicants by competencies and skills that have hitherto been embedded in courses or not validated except through teacher recommendations.

This is not more noise because it is actually information garnered by colleges through other sources, where available. It is evidence that presents a more rounded picture of the candidate in the context of his/her opportunity, choices, engagement and achievement. It captures leadership, soft skills, inter-disciplinary skills, and more. And it’s validated. It’s a pipeline to the equity they seek so dearly in admissions. The leading college counseling application providers are well aware of what is ahead. This will take the student profile into a different level of granularity and meaning because the assertions being made will actually be from institutional sources with evidence backing it up.

4. **Individual School CLR Transcripts** (Timeframe: three to five years)

In the next three to five years, we see schools being able to generate their own Comprehensive Learner Records as the ecosystem matures. For smaller schools without the resources of states and districts profiled below, the main option will be to rely on their SIS, LMS, Portfolio and Pathway providers to implement the CLR. Implementing the Comprehensive Learner Record (CLR) and the Competency & Academic Standards Exchange (CASE), provide the ability to capture all learning, including pathways, competency skills, courses, grades and open badges. This approach ensures that each vendor’s software accommodates these features and has been certified by IMS Global Learning Consortium to be compliant. By doing so (and placing pressure on vendors to do so) smaller schools can avoid custom installations. That might not enable them to capture information from other ecosystem providers their students use into a Comprehensive Learner Record, but it will be comprehensive to the degree that it captures all their own validated learning including pathways and co-curriculars, not just academic coursework. CLR output readers will be able to quickly crunch the underlying object data just as the 2015 CLR Higher Ed Pilot used an open-source reader provided by Learning Objects: the CLR Higher Ed pilot was funded by the Lumina Foundation and supported by American Association of College Registrars and Admission Officers (AACRAO), NASPA and NILOA.
5. **District or State Credentialing Hubs** (Timeframe: present to five years)

This evolution has already begun and it was exciting to see the planning under way at the recent IMS Global Learning Consortium Conference in November 2019. To give you a sense of this we provide two charts — one from Broward County Schools in Florida (the 6th largest school district nationally), and the other from the Michigan Department of Education. These are Comprehensive Learner Pilots that are in the design phase. What you will see from them that are foretelling the future are the inclusion of the CLR wallet concept that allows the student to have involvement in the assertions of validity that have already taken place so they can personalize their record of learning for different contexts. Also, it is noticeable how they are looking to capture learning validated by outside partners of the district or ecosystem.
6. Credentialing Hubs serving Schools (Timeframe: present to five years)

The PDF transcript exchanges that exist today will evolve to accommodate a world of personalization. Credentialing hubs serving students are already emerging today using distributed ledger technologies with transcripts, skills and competencies embedded in the blockchain (the distributed digital ledger) and sharable with any third-party without the need to contact each institution on the user’s behalf. Credentialing Hubs will not only serve those schools or districts that cannot create credentialing hubs of their own but they will provide connectivity for all students and learners on a journey that does not end with 20th century product endpoints like college entry. For our network of independent schools, OESIS is looking at credentialing hub solutions and partnerships that can serve these needs.

We are excited to join the PIVOT Transcript Partnership and be part of a sea-change in education. As an OESIS network school, you will have the resources and guidance of PIVOT to be able to determine your pathway towards piloting and then fully implementing this vision. We are excited to be a leading part of the PIVOT Transcript Partnership with IMS Global Learning Consortium and a whole host of public schools, districts and networks across the U.S.

COMING SOON

We will be adding an OESIS-XP Pathway launching in March 2020 called “Navigating the EdTech Ecosystem.” Your school can participate as a member school in understanding the impacts discussed here as well as the ways in which we are moving towards a world of interoperability, personalization, portability and student choice.
## OESIS Membership Levels 2020

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Network Partner Membership</th>
<th>All Faculty Membership</th>
<th>All School Membership (Faculty &amp; Students)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Enrollment Bases</strong></td>
<td>$1,000 for calendar year 2020</td>
<td>• $2,500 for schools with &lt;100 Faculty</td>
<td>• $15 per student enrolled in school K-12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• $3,500 for schools with 100-200 Faculty</td>
<td>• Minimum of $5,750</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 12 months from activation</td>
<td>• Maximum of $11,750</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Upgrade any time from Network membership</td>
<td>• Special 33% discount for schools who upgrade before May 1, 2020 (must be member school by Feb. 28, 2020).</td>
</tr>
<tr>
<td><strong>OESIS Conferences</strong></td>
<td>25% Discount</td>
<td>35% Discount</td>
<td>35% Discount</td>
</tr>
<tr>
<td><strong>OESIS Cohort Pathways</strong></td>
<td>$399 per OESIS Pathway per teacher</td>
<td>$100-150 per OESIS Pathway per teacher</td>
<td>$100-150 per OESIS Pathway per teacher</td>
</tr>
<tr>
<td>managed by Network Leaders in PBL, SEL, CBE and more</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introductory Level, Level 1 (Planning Unit Developer), Level 2 (Practitioner) and Level 3 (Master Credential) Faculty Professional Development Cohort Pathways start every two months in January, March, June, September and November. Faculty who successfully complete each level with feedback from an OESIS Network Leader will earn a digital badge.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Research Surveys &amp; Reports</strong></td>
<td>Included</td>
<td>Included</td>
<td>Included</td>
</tr>
<tr>
<td><strong>XP Innovation Content Repository for all faculty</strong></td>
<td>Not Included</td>
<td>Included</td>
<td></td>
</tr>
<tr>
<td><strong>Portfolium Mastery Assessment Platform &amp; linked Portfolio for Faculty to set up their own Pathways, Rubrics, Learning Outcomes</strong></td>
<td>Not Included</td>
<td>Included*</td>
<td></td>
</tr>
<tr>
<td><strong>OESIS Career Confidential Teacher Recruitment Platform</strong></td>
<td>Not Included</td>
<td>Included</td>
<td></td>
</tr>
<tr>
<td><strong>Portfolium Mastery Assessment Platform/ E-Portfolio for Students</strong></td>
<td>Not Included</td>
<td>Not Included</td>
<td>Included for all enrolled students up to maximum of 1,250</td>
</tr>
</tbody>
</table>

* Set up and training options will be discussed at time of joining for all platforms.
“The time is right for us to take the vision of a Comprehensive Learner Record (CLR) into mainstream acceptance and adoption in K-12. IMS Global has built the technical backbone via open standards of an interoperable CLR ecosystem; Competency Based Education has gained widespread acceptance of its potential impact on student equity, on growth and its ability to provide greater learner agency; higher education has completed pilots with CLR approaches and K-12 can learn from these initiatives; technology platforms from e-portfolios, mastery assessment platforms, SIS and data warehouses are capturing more student learning; Colleges are increasingly looking for more holistic pictures of admission applicants; and concerns have arisen about the impact of grades on student health, not to mention their validity for real student learning, resilience and growth.”

Sanje Ratnavale, Co-Chair PIVOT and President, OESIS Network of 600+ schools