Connecting Credentials

BUILDING LEARNING-BASED CREDENTIALING SYSTEMS

Making All Learning Count

Work Group Report

November 2017

Forward

Connecting Credentials is a collaborative effort of more than 120 national organizations and more than 3,000 stakeholders to make credentials easier to understand, use and interconnect. Credentials include degrees, certificates, diplomas, professional and industry certifications, licenses, and micro-credentials such as digital badges. Credentials connect people to jobs, education programs and career pathways.

In April 2017, Connecting Credentials convened five workgroups of diverse leaders in credentialing reform to tackle particularly challenging aspects of achieving the vision of a learner-centered credentialing ecosystem articulated in the 2016 From National Dialogue to Collective Action: Building Learning-Based Credentialing Systems. The workgroups were asked to recommend actionable steps that should be taken to address the credentialing needs and priorities of diverse learners, especially adults with no recognized postsecondary education, in the complex and highly dynamic credentialing marketplace. With this equity focus, they addressed the following questions:

- **Building Trust in the Quality of Credentials:** *How can we increase the quality, quantity and pay-off of credentials for all students, especially for those with no other postsecondary credentials?*
- **Equipping Adult Learners to Attain Market-Valued Postsecondary Credentials:** *How do we equip and empower adults with no postsecondary credential to navigate, persist and succeed in selecting and attaining postsecondary credentials that lead to educational and economic advancement?*
- **Aligning Demand and Supply Signals:** *What should be done to better align diverse credentialing processes and products with emerging employer hiring practices so that job applicants are evaluated based on what they know and can do, rather than who they know and where they went to school?*
- **Improving Learner Mobility:** *How can we improve credential stackability and portability, especially for adults with little or no prior postsecondary education?*
- **Making All Learning Count:** *How can we reliably and consistently recognize learning that takes place in informal and workplace settings?*

This report and those of the other four work groups can be found at www.connectingcredentials.org. Each workgroup started with the recognition that the predicted disruptions in our learning and credentialing systems already have begun to transform these systems. More diverse learners with different needs and priorities are engaging in postsecondary learning than ever before. The speed of change in the clusters of competencies required at work is accelerating. The proliferation of learning and credentialing options, including substantial expansion of work-based learning, continues unabated, leaving credential seekers confused about what credential and pathway to pursue and credential providers and their quality assurers trying to adjust to this changed environment.

Together, the workgroups contributed to our understanding of the interconnectedness and systemic nature of these challenges, identified leading-edge policies and practices to address these challenges and provided useful guidance for moving forward on multiple fronts.

Introduction

Our workgroup was charged with developing strategies to Make "All Learning Counts" a Reality. Americans learn in many contexts – from conventional academic education to work to community service to family life – and much of that learning is left on the table in the course of hiring, promotion, and educational advancement. We all have a stake in making more learning count. Undercounted learning hampers mobility, disrupts labor market signals, and exacerbates and enforces socioeconomic inequities. When all learning counts, employers can spot and recruit talented workers they might have otherwise missed, plugging skills gaps that would otherwise be left unfilled. Educational institutions can be more sure of their applicants' skills, and deliver better and more efficient training to them once enrolled. Consequently, learners themselves benefit from better access to jobs and further education.

Since uncounted learning is necessarily invisible, it's difficult to quantitatively assess its economic impact. To judge by the raft of important credentialing projects that have emerged to match the evolution of learning in America; however, learners, educators, and hiring managers have recognized the problem, and have made the case for credential reform.[1]

Our group conducted three workgroup calls bringing together leading experts in education, technology, and government policy to identify concrete steps towards making all learning count. Our core recommendations are listed below, followed by a full report on the discussions that led us to our conclusions.

Core Recommendations

1. ***Expand the use of prior learning assessments to count both for college credit and in hiring.***
2. ***Support wider use of work-based learning models that count for college credit and competency-based credentials.***
3. ***Expand the models for Comprehensive Student Records beyond institutions.***
4. ***Promote the development of tools to support competency-based hiring.***
5. ***Create more interoperability among credentials across various domains.***

Learning is happening everywhere – and it is increasingly a passport to move around our economy or through our educational system. As skills and knowledge become more important, people want to be able to make them count, no matter where or how they acquired them. But our systems for counting and credentialing learning are still very siloed. Learning at work can be very difficult to count toward an academic degree. Even learning within the education system can vanish when people try to move from one institution to another. And as informal learning through self-study becomes increasingly available and important, we have few systems for helping learners count that learning toward a degree or for helping employers consider it during hiring. Learning from community service and other experiences is even harder to capture.

[1] http://connectingcredentials.org/related-initiatives

Making all learning count is an important – and formidable – challenge. We approached it in three stages. First, we spent time developing some conceptual frameworks to help guide our analysis. Making all learning count starts with getting clear about what we mean when we say "learning" and what we mean when we say "count". This might sound pedantic, but without clarity around both points it would be impossible to devise a set of policy recommendations or actions. Second, we used our frameworks to help hone in on types of learning and ways of counting that seemed most important to learners and that might also lend themselves to policy or technology-driven solutions. Third, we used our collective experience to identify near- and longer-term policy and technology solutions to undercounting.

Stage I: Mapping the Learning Terrain

We started by tackling the question of what we mean by learning. Our first step was to break learning down into different types depending on how and (in a looser sense) where it takes place:

1. **Academic:** The first category is *academic* learning – learning through study. Most of our foundational learning from childhood to adulthood falls into this category, occurring in school. Advances in education technology mean that academic coursework doesn't necessarily happen on campus, however: a huge array of massive open online courses (MOOCs) now provide classes remotely – outside of the classroom setting – and modularly, in on-demand bits and pieces outside of a full curriculum.[2] Academic self-education is still alive and well, too. A learner interested in picking up a new language, for work or just for the fun of it, can still do so herself, perhaps with a boost from a learning application like Duolingo.
2. **Work**: Learning through work constitutes a second major mode of learning. Some *work-based learning* opportunities are designed by the employer: registered apprenticeships and less formal (but more common) internships, military training, and employer-mandated training courses (such as in information security or workplace safety), ensure that workers have the basic skills needed to do the job. And a large proportion of work-based learning occurs informally, as workers acquire skills and knowledge day-to-day. It may also occur through online professional learning management systems, which resemble or may even be identical to the MOOCs of the academic category.
3. **Service (community)**: Community service experienced an upswing in popularity and scholarly interest in the 1990s,[3] and since then there has been considerable debate around the definition of community or "citizen" service – for example, whether it ceases to be service if a stipend is

[2]In 2016, about 35 million learners were enrolled in MOOCs offered by over eighty providers and ranging from foundational courses like those offered by Khan Academy to others that train for specific competencies such as data analysis, project management, and public speaking, some at the graduate level. American Academy of Arts and Sciences, 2017. "The Complex Universe of Alternative Pathways and Credentials." https://www.amacad.org/multimedia/pdfs/publications/researchpapersmonographs/CFUE_Alternative-Pathways/CFUE_Alternative-Pathways.pdf

[3] Perry and Imperial, "A Decade of Service-Related Research: A Map of the Field." Non-Profit and Voluntary Sector Quarterly. September 2001. http://journals.sagepub.com/doi/pdf/10.1177/0899764001303004

paid. Though several sources[4] define *service learning* as a structured process involving connections to school or work and a process of evaluation and reflection, we consider service learning to be possible – and still valuable – in less formal circumstances, such as mentoring a neighbor or tutoring newly arrived Americans in English.

To help organize our thinking about how to better count learning types, we chose a second, continuous dimension: the *formality* of a learning process. Taking inspiration from a 2016 review of literature on informal learning, conducted by one of our workgroup members from the Rutgers' School of Management and Labor Relations, the formality continuum adds further clarity to the counting problems faced by today's learners.

The literature review characterizes the most formal learning as that which "occurs in schools that award credentials, is instructor led, covers an organized curriculum, and where knowledge is intentionally sought."[5] However, since our group identified highly formalized learning process in work-based and service learning contexts (such as apprenticeships and the Peace Corps) and relatively informal ones in academic contexts (such as self-study and some MOOCs) our taxonomy does not consider academic learning to be inherently formal. Rather, our taxonomy identifies more and less formal learning processes within each location category. Characteristics that move a learning experience up the formality continuum include an organized curriculum, a central instructor role, third-party accreditation or quality assurance, and very importantly, a standard credential.

Our learning taxonomy depicts location categories along the horizontal axis and a continuum of formality along the vertical. Individual learning processes and their associated credentials are indicated by their location and according to their formality relative to other entries, as agreed by the workgroup.

[4] National Youth Learning Council, "K-12 Service Learning Standards for Quality Practice". https://nylc.org/standards/

[5] Michelle Van Noy et al. "Reconceptualizing Learning: A Review of the Literature on Informal Learning". April 2016. http://actfdn.org/wp-content/uploads/2016/04/Informal-Learning-Lit-Review-Final-April-2016.pdf

Types of Learning

↑

More formal

Formality

Less formal

Academic	Work-based	Service
• Compulsory secondary education; conventional college degree/certificate study. • MOOCs (e.g.) Khan Academy, Coursera, edX. • Personal pursuits and self-study.	• Registered apprenticeship; co-op study programs. • Third-party validated military training & occupations (ACE) and workplace training (ACE, CACE, NCCRS) • Internship, unregistered apprenticeship, and other uncredentialed work-based learning. • Voluntary professional development. • Incidental on-the-job learning.	• Structured service (e.g., Peace Corps, Habitat for Humanity). • Formal volunteering or leadership (i.e., with defined role such as "volunteer coordinator" or "language mentor"). • Incidental community learning or informal volunteering.

We acknowledge that some learning processes blur these categories, and that there are other learning processes that fall outside of them entirely. Hobbyists can develop a tremendous amount of expertise in their field of interest. Nearly 50 million Americans provide unpaid care for a child with special needs or an adult, no doubt gaining valuable knowledge and experience in the process.[6] And around two-thirds of Americans have instantaneous access to the world's knowledge through their smartphone.

Assigning greater normative value to these types of learning, especially care work, is a worthy goal. It is a very long-term one, however, which will require societal efforts well beyond what governments, educators, and employers can muster through their own innovations and changes. When we consider what types of learning must be better counted to improve the educational and economic standing of marginalized Americans in the next years through the efforts of these parties, we should focus on the "countable" academic, work-based, and service learning processes outlined above.

[6] http://www.aarp.org/content/dam/aarp/ppi/2015/caregiving-in-the-united-states-2015-report-revised.pdf

We also don't assume that the levels of formality examples used represent equivalent depth and breadth of learning. Rather, the examples are used to provide illustrations of the continuum of formality that exists in all three domains (academic, work-based and service).

Stage II: Understanding What Learning Does/Doesn't Count

This typology allowed our group to begin categorizing learning according to a set of practical and easy-to-understand criteria. We were then able to clarify what we thought learning should count toward. We quickly arrived at a consensus that it should count toward better economic and social mobility for learners, and ease for employers in finding talent.[7] We sought strategies to "make learning count" that were learner-centered, in the sense that they put the interests of the learner above those of institutions or organizations. And we understood learner interests primarily through the two goals of having learning count toward educational and career advancement. With those two learner-centered goals in mind, we went on to consider what kinds of learning are not being adequately counted today and how we might make those more visible to policymakers and others who can address the problem.

Our heuristic for identifying valuable learning based on its usefulness in signaling learners' skills to employers and institutions allows us to begin considering practical approaches for improving the *countedness* of learning processes. But a final obstacle stands between the status quo and a collaborative ecosystem where learning of different types can be usefully applied across the worlds of school and work.

The Need for a Common Currency for Learning: Competencies

What will serve as the basic unit of such an exchange? To date, the basic unit of individual Americans' learning "transactions" has been credentials – degrees most notably, but also licenses, certificates and certifications. In theory, degrees testify to a balanced depth and breadth of knowledge, as well as core skills that are useful across many occupations and disciplines.[8] In practice, employers are increasingly unsure about this. On release of a joint survey conducted in 2013 with American Public Media, *The Chronicle of Higher Education* reported that while employers "use college as a sorting mechanism, to signal job candidates' discipline and drive, they think it is falling short in adequately preparing new hires."[9] Today's employers wonder about a credential's contents, and even when a degree program does confer the knowledge and skills necessary to get the job and do it well, those skills will need updating.

Employers and learners also encounter a continually and rapidly expanding variety of credentials issued by a diverse, decentralized mix of education providers, industry-affiliated organizations, and third-party issuers. In recent years, both certificates and certifications have seen large growth, for example[10].

---

[7] Action Plan, 6.
[8] Lumina Degree Qualifications Profile, 12. https://www.luminafoundation.org/files/resources/dqp.pdf
[9] Karin Fischer, *Chronicle of Higher Education*, "The Employment Mismatch". March 4, 2013. http://www.chronicle.com/article/The-Employment-Mismatch/137625
[10] http://www.economicmodeling.com/2016/05/31/the-rise-of-postsecondary-certificates-in-the-us/

Figuring out what knowledge and skills any of these credentials represent and how to "count" them in any combinations is challenging.

Though new credentials have appeared along with new learning styles – MOOC students, for example, can pursue "specializations", "micromasters", and "nanodegrees" comprised of several courses[11] – the combination of employer uncertainty around degrees generally and the upskilling imperatives brought on by changing technologies means new credentials alone will not be enough to achieve better counting. A more granular unit of currency is better suited to making all learning count.

We have one in the form of *competencies*: the individual knowledge and skills that make up what a learner knows and is able to do.[12] Using competency as basic unit of currency can resolve the problems of leaving uncredentialed learning on the table as well as the lack of clarity about what credentials actually contain.

How Much Does It Count?

To develop practical steps for better counting learning experiences in today's expanding learning and credentialing ecosystem, our group needed to identify the types of learning and credentials that are currently undercounted by employers and institutions. Having already mapped out the major learning processes available to Americans in academic, work-based, and service learning categories, we created an index to describe the "countedness" of different learning types in the eyes of employers and educational institutions.

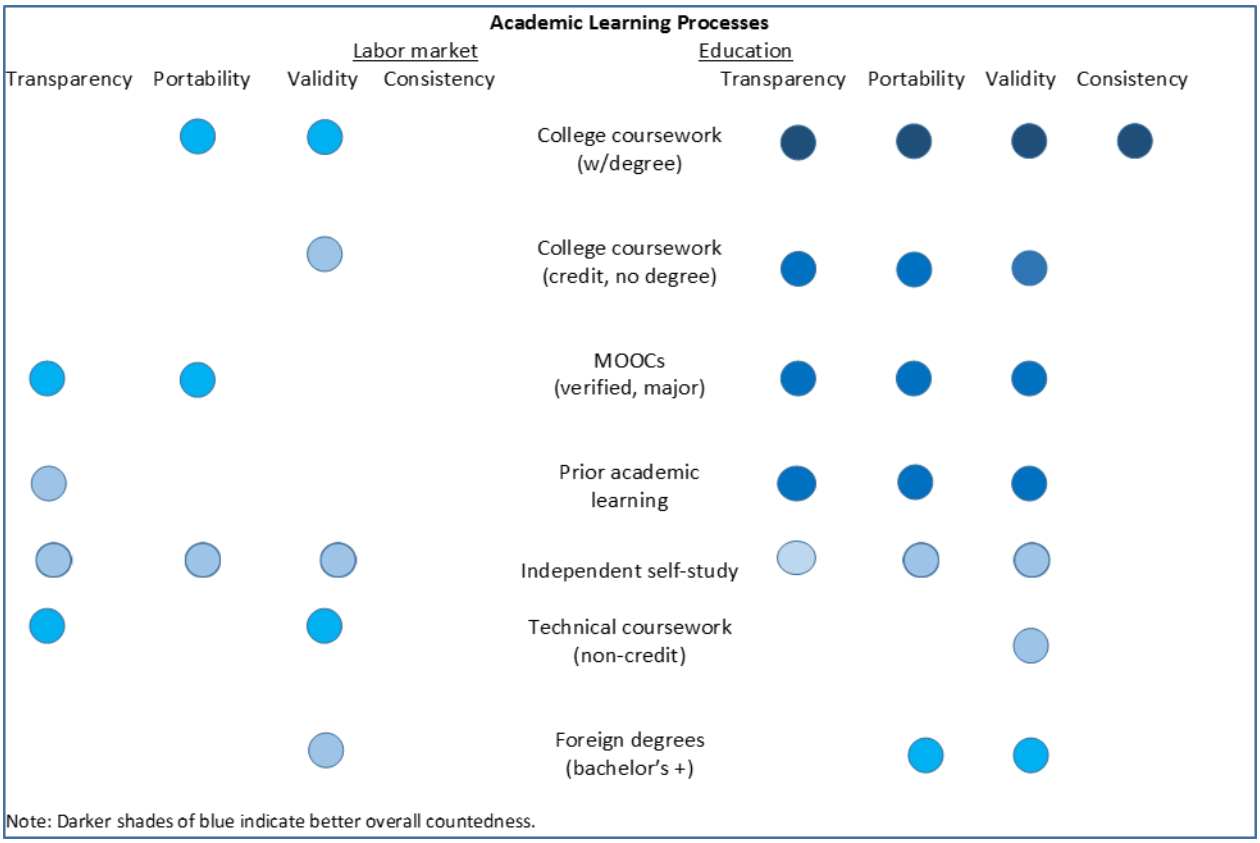
Lacking generalizable quantitative data to make these evaluations, our rankings are necessarily qualitative. However, by using a points system derived from ACE's Quality Dimensions for Connected Credentials, we were able to rank how valuable different learning processes can be for learners moving up the ladder at school or work. ACE lists six quality dimensions for connected credentials, which we combined into four dimensions that we considered applicable to all learning processes, whether credentialed or not:

- *Transparency* is a characteristic of learning processes whose underlying competencies can be easily and clearly defined in language commonly used by credential consumers (employers or institutions) (see also *Consistency*).
- *Portability* refers to the usefulness of a learning process across geographical areas. It is characterized by association with a national credential, a common evaluation service, or an open digital standard that allows its application across states and between institutions within the same state.
- *Validity*, which includes ACE's relevance dimension, indicates that a learning process is commonly used at present in employers' hiring and promotion practices and higher education institutions' admission standards. It also indicates that consumers generally recognize the assurance systems that validate the learning process, if any.

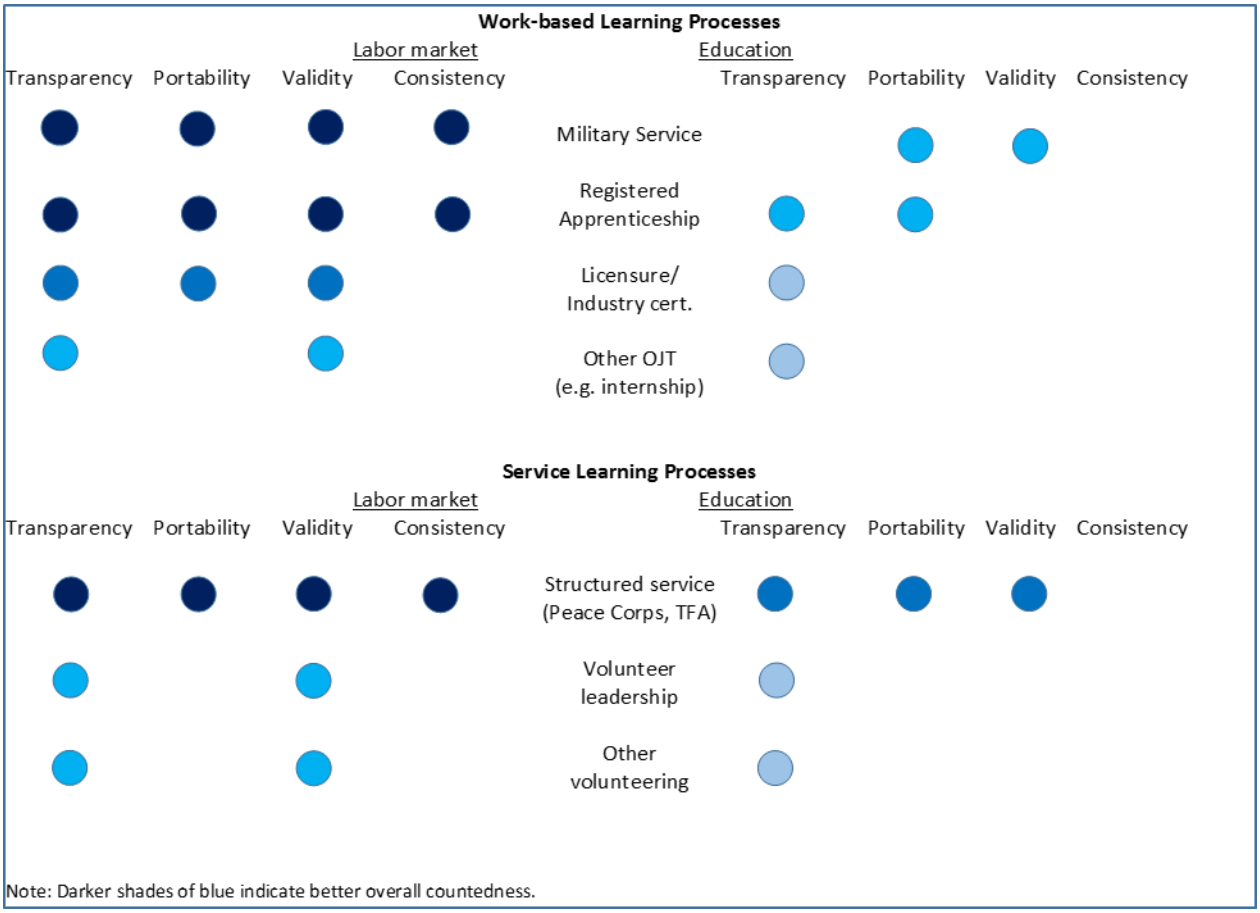
[11] Offered by Coursera, edX, and Udacity, respectively.
[12] Beta Connecting Credentials Framework, 1. http://connectingcredentials.org/framework-detail/

- *Consistency* is a characteristic of learning processes where different instances of the process are valued relatively equally by a consumer group. It includes an equity concern: a process is less equitable – and also less consistent – if prestige greatly affects the valuation of an experience, or if an expensive evaluation service (such as those for foreign credentials or military training) is required to exercise its full value.

How and Where Learning Counts[13]



[13] See Appendix B – Notes on the "Countedness" Index



Stage III: What We Can Do to Make More Learning Count

Recommendations

1. Expand the use of prior learning assessments to count both for college credit and in hiring.

a. Incentivize reliable, consistent credit for prior learning through federal and state policies.
   i. Allow students to use their Pell grants to pay for the assessments.
   ii. Allow students to count PLA credits towards enrollment intensity required for Pell grants.
   iii. Use public workforce development funding (e.g. WIOA, TANF, SNAP) to pay for the assessments.
   iv. Encourage states to fund PLA assessment and administrative costs (offset costs to institutions).

b. Modify state and accreditation policies that limit use of credits awarded for prior learning.

c. Encourage postsecondary institutions to offer more methods of PLA and to accept PLA credits in transfer.
d. Encourage employers to cover the costs of PLA in their tuition assistance programs.
e. Encourage employers to use competencies from prior learning within hiring processes.
f. Disseminate best practices from the United States and other countries.
g. Encourage states to create common credit awards for widely used non-degree credentials including professional certifications and licenses
h. Encourage colleges to build articulation between noncredit and credit programs and to rethink how to provide credit for learning now framed as noncredit.[14]

2. Support wider use of work-based learning models that count for college credit and competency-based credentials.

a. Apprenticeship – make it easier for institutions to assess and award credit for the on-the-job learning component of apprenticeship programs.
b. Create incentives for employers to provide assessment of, and credentials (or college credit) for, skills developed informally at the work site, as well as to provide more structured and credentialed worker training/professional development opportunities.
c. Encourage employers to provide more structured and credentialed forms of training and professional development.
d. Increase support for cooperative education (through reforms to federal works study and state funding strategies).

3. Expand the models for Comprehensive Student Records beyond institutions.

a. Create user-friendly electronic records systems in which information about a learner's competencies and credentials attained can be presented in a unified fashion. Instead of being institutionally owned by the educational provider, these records would provide a comprehensive picture of learner competencies, encompassing all learning across multiple institutions, employer settings, etc.
b. Expand the understanding of different forms of credentials (including badges, certificates, and certifications) and educate learners as to how best to share them.

4. Promote the development of tools to support competency-based hiring.

a. Identify and engage labor and professional organizations to develop and/or use sector-specific learning frameworks to make competency-based hiring a viable sectoral strategy.
b. Disseminate sector-specific assessments for use by employers in competency-based hiring.
c. Engage with powerful corporate job search platforms such as LinkedIn (currently ~500 million users) to encourage employers to develop competency-based professional profiles that can be matched to competencies gained through academic, work-based, and service learning through common language standards.

[14] https://ccrc.tc.columbia.edu/publications/noncredit-workforce-education-policy-practice.html

5. Create more interoperability among credentials across various domains.

a. Create an open platform for sharing authenticated organizational information and validating competencies earned through service learning using the Open Badges standard.
b. Increase licensure portability through expanding interstate compacts, mutual recognition agreements, and expedited licensing approaches.
c. Develop common competency definitions to enable recognition of credentials within human resources information systems, drawing up HR Open Standards work.
d. Encourage issuers of both current and new credentials to use these recommendations and illustrate them through transparent criteria and interoperability.

Conclusion

Making "all learning count" can be seen as an overwhelming aspiration. Our conclusion is that a substantial improvement in what is recognized for academic progression and for employment can be realized by focusing on a handful of major gaps. Examples of those opportunities form the basis for our recommendations. How we use competencies as a translation device to align credentials easily and understandably with educational and employment requirements is key. And we see the current widely-shared interest in expanding work-based learning as opportune to leverage for ensuring those experiences result in credentials that learners can use in their future education and work pursuits.

Appendix A – List of Work Group Members

Co-Chairs

Mary Alice McCarthy, New America

Martin Simon, National Governors Association Center for Best Practices

Staff

Larry Good, Corporation for a Skilled Workforce/Connecting Credentials

Michael Prebil, New America

Members

Monika Aring, SkillsNation

Gianna Baker, NILOA

Deb Bushway, consultant

Carla Casilli, Badging consultant

Michele Chang, Hope Street Group

David Chase, Western Association of Schools and Colleges

Scott Cheney, Credential Engine

Michael Cohen, Achieve

Deb Everhart, Learning Objects

Steven Ezell, Information Technology and Innovation Foundation

Roberta Hyland, National Student Clearinghouse

Becky Klein-Collins, CAEL

Kate Kreamer, Advance CTE

Mary Beth Lakin, American Council on Education

Charla Long, C-BEN

Susan Lupo, CSW/Connecting Credentials

Kathy Mannes, Jobs for the Future

Reva Mingo, Our Piece of the Pie

MacKenzie Moritz, Service Year

Amelia Parnell, NASPA

Neil Ridley, Georgetown Center on Education and Workforce

Michael Sessa, Postsecondary Electronic Standards Council

Mary Ellen Sprenkel, The Service Corps

Nan Travers, SUNY Empire State University/Connecting Credentials

Michelle Van Noy, Rutgers University

Holly Zanville, Lumina Foundation

Appendix B: Notes on the "countedness" index – How much does it count?

The graphics depict the countedness of learning processes – both credentialed and uncredentialed – in our report's three location categories. The left side of each diagram represents countedness by employers, and the right displays countedness by educational institutions.

To develop practical steps for better counting learning experiences in today's expanding learning and credentialing ecosystem, our group needed to identify the types of learning and credentials that are currently undercounted by employers and institutions. Having already mapped out the major learning processes available to Americans in academic, work-based, and service learning categories, we created an index to describe the "countedness" of different learning types in the eyes of employers and educational institutions.

Lacking generalizable quantitative data to make these evaluations, our rankings are necessarily qualitative. However, by using a points system derived from ACE's Quality Dimensions for Connected Credentials, we were able to rank how valuable different learning processes can be for learners moving up the ladder at school or work. ACE lists six quality dimensions for connected credentials, which we combined into four dimensions that we considered applicable to all learning processes, whether credentialed or not:

- *Transparency* is a characteristic of learning processes whose underlying competencies can be easily and clearly defined in language commonly used by credential consumers (employers or institutions) (see also *Consistency*).
- *Portability* refers to the usefulness of a learning process across geographical areas. It is characterized by association with a national credential, a common evaluation service, or an open digital standard that allows its application across states.
- *Validity*, which includes ACE's relevance dimension, indicates that a learning process is commonly used at present in employers' hiring and promotion practices and higher education institutions' admission or articulation standards. It also indicates that consumers generally recognize the assurance systems that validate the learning process, if any.
- *Consistency* is a characteristic of learning processes where different instances of the process are valued relatively equally by a consumer group. It includes an equity concern: a process is less equitable – and also less consistent – if prestige greatly affects the valuation of an experience, or if an expensive evaluation service (such as those for foreign credentials or military training) is required to exercise its full value.

<u>Overall takeaways from the index:</u>

- Currently, work-based learning is better counted by employers; academic learning is better counted by institutions.
- Service learning is poorly counted overall.
- Most learning processes are transparent -- it is relatively easy for learners or issuers to describe their underlying competencies.

- Consistency is a problem across categories -- only more conventional processes with standards and common practices established over many decades of use appear consistently valued at present.
- For very poorly counted learning processes (such as internships/unregistered apprenticeship and non-leadership volunteering) non-credential record systems like extended transcripts or comprehensive learner records may be the only way to validate their underlying competencies among credential consumers.