

An Ease Learning White Paper

Solving Job Readiness and DEI using a Skills-centric Approach to Online and HighFlex Learning



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Abstract

Within the workforce, there is a growing percentage of workers who have skills gaps and are not job ready. In fact, most companies worldwide—87 percent—are aware that they either already have a skills gap, or will have one within a few years.¹ For decades, higher education has been regarded as an on-ramp to professional career paths, social mobility, higher wages, important social networks and pathways to prosperity. Several factors are calling into question whether this pathway is actually providing the types of learning opportunities that will help develop today's most in-demand skills. Many industries report recent graduates still need additional upskilling before they are fully job ready even though they have graduated college with a degree. Workers will also need to continuously re-skill throughout their careers to keep pace with technological changes and evolutions. The skills of today are not the skills of yesterday. Much of our education system was established to produce workers for the industrial revolution and it has not evolved to meet the needs of a much more technologically advanced economy.²

The implications for this widening gap are significant. InStride gathered impact statistics in November of 2021 and published the following:³ [See graphic on the following page.](#)

If education, upskilling and reskilling is the solution to closing this widening gap, then what are the key requirements for making those efforts impactful and effective? A skilled, more diverse workforce has been proven to be inherently more competitive. What kind of transformation to our learning systems is needed to meet these increasingly imperative demands?

Access to higher education has always been extraordinarily stratified and the noted inequality that exists in higher education continues to create an even larger equity imbalance in the workforce from a diversity, equity and inclusion perspective. Access to education is often hinged on obtaining funding to cover ballooning costs to participate. Unlocking Pell grants for CTE (Career and Technical Education) could indicate a shift in mentality that skills focused pathways are a valid offering to address the dire need. Presently students in these programs are excluded from access to these funds⁴. Socioeconomic divisions plague access. DEI remains a vital lens through which we must evaluate the need for an overhaul, but how can we retool our education system to address all aspects of this complex situation?

¹ McKinsey & Company, [Mind the \[Skills\] Gap](#), January, 2021

² LinkedIn, [Factory Model vs 21st Century Model of Education](#), April, 2016

³ InStride, [10 Need to Know Skills Gaps for 2022](#), November 2021

⁴ CTE Policy Watch, [Pell Grants & Short-term Programs: Unlocking Careers and Educational Opportunities](#), December, 2021

10 need-to-know skills gap statistics for 2022



Problem Statement: How do we redefine and retool education to design and offer programs that cater to the growing adult learning population's needs, optimize diversity, equity and inclusion and position learners to demonstrate critical skills needed in the workforce?

Supporting Questions:

- What skills do we need graduates to have to fulfill the needs of today's workforce?
- Who are the learners we need to serve and what types of learning experiences will close this gap?
- How do we arm learners with the understanding of their own skills, and provide them a voice in the attainment of these skills and enable them to open doorways into the workforce?
- How do we ensure that DEI is intentionally a part of the design process of the learning and why does this matter?

Background

Skills Required for the Work of Today and Into the Future

As technological advances accelerate, hiring for adaptability and resilience is critical. Open-minded people who can shift gears and take on different responsibilities as needed, adapt their behaviors to their teammates' needs, manage uncertainty and find the positive when things go wrong are essential. Agility and flexibility — which go hand in hand with adaptability — allow workers to bring and implement fresh ideas. Self-motivated workers and people who have intrinsic motivation need less oversight and management. Self-motivation and self-direction enables people to take initiative and ownership of their work, set achievable goals against a schedule and take steps accordingly and adapt their plans as necessary. In a future where there is constant change, these skills are paramount to success. With the shifting landscape in industry, people do not remain static in one job for the duration of their career. A cycle of upskilling and continual reskilling has already become the norm and is a global challenge. The boundaries between professions and industries are dissolving. Deloitte Access Economics (2016a) found that 60% of employees planning to pursue a new job in the next ten years are planning to change to a different industry, a different role, or both.⁵

In the same report from 2017, Deloitte also reported that "soft skill-intensive occupations will account for two-thirds of all jobs by 2030" and that hiring employees with more soft skills could increase revenue. Five years later, this is even more apparent, proving this trend is manifesting.

Post-secondary institutions of higher education have an opportunity to emerge and excel as a solution to these problems but they must adjust their value proposition and create more flexible

⁵ Deloitte Access Economics, [Soft Skills for Business Success](#), May 2017

models that better support the changing landscape in order to realize the opportunity. ***This does not require higher ed to become a bootcamp of skills-focused, self-paced fully online offerings. A liberal arts foundation is ideal to promote opportunities for critical thinking skills, collaboration, leadership and other critical in demand soft skills.*** What higher education needs is a retooling.

Solution

Higher education and the job market are at a unique cross-roads; the way learners need to learn has evolved. Higher education must also evolve to keep pace with these needs. If Higher ed. Institutions are willing to embrace a new approach that puts learners' needs squarely at the center of the focus, they will also meet the needs that the job market is demanding. And maybe most critically, they can potentially crack diversity, equity, and inclusion simultaneously by embracing a skills focused approach that rewards competency over privilege.

Distilling the Key Factors to Address with Retooling

Core to solving the skills gap, is recognizing the underlying areas that must be addressed and what specific changes can impact meeting the growing demands required by learners and workforce alike.

1. **The number of adult Learners is growing; these students have different learning preferences and are savvy consumers.** Adult or non-traditional learners, those students over the age of 25 make up nearly half of all students enrolled in post-secondary education as reported by the National Center for Education Statistics⁶ and this percentage is expected to grow. These students are often juggling their education with their family and work responsibilities and are looking for flexible learning opportunities. According to Dr. Carol D'Amico, former assistant secretary for adult and vocational education at the U.S. Department of Education and Executive Vice President for Strada Education Network, students are consumers of education. They have more options available and they evaluate these based on the expected return on their investment. Adult learners in particular are looking to an increasingly diverse array of providers to fulfill their career aspirations and they have different needs and expectations than traditional students.⁷ These students want evidence of their learning, evidence of skill development that they can share with their current or future employers. They are also coming into learning with a wide variety of skills to begin with. Assessing prior learning is also critical to placement and crediting them for the skills they already have.⁸

Designing learning for specific learner personas such as adult learners with unique needs is not something traditional faculty, experts in content disciplines but not

⁶ National Center for Education Statistics, [Fast Facts: Back-to-school statistics \(372\)](https://nces.ed.gov/fastfacts/display.asp?id=372)<https://nces.ed.gov/fastfacts/display.asp?id=372>

⁷ Real Clear Education, [Students are Consumers. It's about time we treated them that way.](#) July, 2018

⁸ National Conference of State Legislatures, [Credit for Prior Learning](#), December, 2020

pedagogy or competency based learning, were trained to do. Yet faculty remain at the helm of curriculum development and have no formal training in most cases in designing learning⁹ that will foster skill development. Learning design is a science and advanced discipline in and of itself. Certain techniques can be very effective when paired with content expertise that create a far more beneficial environment for learners to thrive.

Skill development requires active forms of learning as opposed to common passive formats such as lecturing. It requires application of knowledge and a focus on what we DO with the knowledge we integrate into our preexisting knowledge. Problem solvers need feedback, practice, and to be encouraged to use their voice. Adult learners need flexibility and different pathways to achieve their goals.

During the height of the Covid pandemic, many faculty were immersed in teaching online and had their already heavy workloads squeezed by a lack of resources to support this sudden rapid transition. While some found a new passion and new ways to connect with their students, many felt a loss of control in how to engage their learners. Faculty are experts in their respective disciplines, but most formal preparation for faculty does not include training in the facilitation of online learning or other technical skills required to maximize this modality. Yes, many adult learners depend upon the access and flexibility of online learning as an essential avenue that opens access. Faculty could benefit greatly from the support of experts in user experience design and web development, as online learning occurs via a browser and essentially, well....online!

Pairing faculty with instructional designers who are versed not only in pedagogical effective principles and use of technology to foster learning is imperative to addressing both content accuracy and rigor as well as format, engagement and retention. Shifting to pairing models like this keeps students at the center of the learning process, increases their engagement and plays a role in DEI through more active participation and voice of the learners being more prominent in the learning process. Active, well-designed online learning is by definition more inclusive. Blended and highflex models, as well as those that are fully online offer advantages because they can incorporate activities and assessments with mixed modalities that support a wide spectrum of learning styles and satisfy unique needs of specific curriculum. The partnership between a learning designer, and faculty coupled with deep insights on learner achievement is a recipe for empowering faculty and ultimately empowering students.

2. **The needs of lifelong learners must be addressed.** Industry is in a constant state of flux and the skills needed by employers continue to evolve. To keep pace, continual upskilling opportunities are needed. A one time degree is no longer enough to maintain currency with ever changing job requirements. People are becoming lifelong learners out of necessity and are seeking new ways to develop the skills needed to meet these

⁹ International Journal of Higher Education, [Differentiation of Roles: Instructional Designers and Faculty in the Creation of Online Courses](#), January, 2019

demands in order to continue to have a productive role in the workplace. These learners want learning opportunities that are workforce aligned and connect academics to career; that incorporate applied-learning experiences into their instruction and are relevant to their career path. There is a strong link between perceived value to career and perceived value of the degree or credential. Increased relevance means increased perceived value.¹⁰

The idea of obtaining a degree and getting a job and staying at the same company for 50 years and retiring with a pension is most certainly dead. Learning over the course of one's lifetime to obtain the first job and the many iterations that will follow in one's career requires different pathways. Opening CTE access through Pell grants would shorten the total amount of time required for obtaining funding towards programs that could provide valuable in demand skills¹¹. Creating shorter skills-aligned types of programs, microcredentials, stackable credentials and partnerships with employers are all ways that transformation is taking shape.¹²

3. The **currency of competency and skills is rising**. Agility is needed to navigate an ever changing job market. This was never more pronounced than during and after the pandemic. Many jobs became irrelevant, and people needed to make immediate pivots. The need for skill agility and relevance continues to grow and is in demand with prospective students and employers. Covid served to accelerate the realization that skill-based learning is a practical way to ensure that a learner is developing the aptitude that is needed not just for a particular role but also skills that are transferable and are valued across a wide breadth of interests.

“Skill-based learning is built upon the foundation of knowledge-based learning. This further allows the students to enhance their aptitude in that specific area of interest. Where the students can plan, implement and process the information in a practical way.”

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The same source notes seven benefits to skill-based learning as:

- Sharpens critical thinking
- Enhances collaborative capabilities
- Purpose-driven
- Acquire experience
- Caters to a Niche
- ROI is high

¹⁰ Stada Center for Education Consumer Insights, [Changing the Value Equation for Higher Education](#)

¹¹ CTE Policy Watch, [Pell Grants & Short-term Programs: Unlocking Careers and Educational Opportunities](#), December 2021

¹² New America, [Community colleges and employer partners are teaming up to expand pathways to artificial intelligence jobs of the future](#), May 2022

¹³ InternMart, [7 reasons why skill-based learning is in demand](#), May 2021

Quantifying skills and making them transferable is also a key component to designing the most effective pathways for learners. Employers are grappling with identifying the competencies and skills they are requiring. Many different frameworks are emerging to try to make these taxonomies interoperable.

4. **The online modality is here to stay.** Adult learners and even those considered in the category of “traditional” learners are turning to the online modality for their learning needs as they are seeking more flexibility in both modality and duration. Many people assume the recent increase in the number of online learners is solely due to the pandemic. However, a recent article from Inside Higher Ed, in October of 2021, discloses that previously online students were miscounted, and that the apparent boom in online learning due to the pandemic was misunderstood and has been recounted taking into account variation in term starts and showing a trend towards this flexible modality that stands apart from the Covid impact all together.

“New federal data show a significantly higher proportion of college learners took at least one course online than previously thought.....51.8 percent of students took at least one online course in 2019-20. This number is much higher than the 37 percent reflected in the fall 2019 enrollment data that has been cited in the past, and on which most estimates of the prevalence of online learning have historically been based.”¹⁴

5. **Faculty can be empowered to foster online experiences that drive tangible outcomes and meet market demand.** The pandemic exposed a critical need for more skills in online pedagogy and user experience design - the plan to support faculty in these areas greatly lagged behind the need to do so with the onset of covid.

“A Chronicle survey reveals just what faculty members and academic administrators think about their emergency efforts. They agree on one key metric: About 60 percent of faculty members, and a similar share of academic administrators, said spring’s [during Covid] courses were worse than face-to-face offerings...Their struggles during the spring semester were many. Nearly eight out of 10 instructors said “creating a sense of engagement between myself and my students” was “very” or “somewhat” challenging.”¹⁵

6. **Online pedagogy and user experience design** are critical for successful delivery in an online modality. Best practices in online course design have been codified in many ways through organizations like Quality Matters, where quality is distinguishable by an audit process and rubric criteria. Many large online institutions have developed their own QA rubric and have noted examples of what quality online learning means as it pertains to their brand.

¹⁴ Inside HigherEd [New US data show jump in college students' learning online](#), October, 2021

¹⁵https://www.chronicle.com/article/did-the-scramble-to-remote-learning-work-heres-what-higher-ed-thinks?cid=gen_sign_in

7. **More Professional Development is both needed and wanted by Faculty and Administrators.** The Chronicle of Higher Ed article previously cited in this paper, included a survey showing the way to produce a better experience for students was to provide better support and training to faculty being tasked with teaching in the online environment. The following table taken from the article shows the survey results.

A Path to Better Online Teaching

Faculty members and administrators both rated professional development as the top need for successful online teaching in the fall.

Here's what faculty members say they need most to teach online this fall:

Professional development in online pedagogy	39%
Better ed-tech tools and training on how to use them	21%
Better Wi-Fi connectivity	10%
Clearer guidance on grading and other policies	7%
None of the above	23%

Here's what administrators plan to invest in to help faculty members:

Training in online teaching	70%
Technology, including Wi-Fi, virtual courseware, and laptops for students	38%
More-sophisticated online-course design	36%
No new or increased investment planned	15%
Other investments	8%
Outsourcing training in course design and teaching	6%

Note: Administrators could choose multiple answers so percentages will not add up to 100.

Table: Audrey Williams June • Source: Chronicle Survey • [Get the data](#) • Created with [Datwrpper](#)

(Source: [Did the Scramble to Remote Learning Work? Here's What Higher Ed Thinks](#))

8. **Equity, diversity and inclusion are vital to our economy.** There is a tremendous opportunity to support the futures of underserved populations of learners by using skills and competency to level the playing field. New flexible models of learning take the assumptions associated with historical degree attainment, both good and bad and use the currency skill development for a non-subjective way to measure the potential of a job candidate.

“For decades, degree requirements have been added to more and more jobs. The degree ratchet increasingly screened out skilled applicants, expanded the opportunity gap and made upward mobility more elusive....Instead of ‘screening out’ by pedigree, smart employers are increasingly ‘screening-in’ talent for performance and potential,” says Byron Auguste, founder of Opportunity@work. “Companies are missing out on skilled, diverse talent when they arbitrarily ‘require’ a four-year degree. It’s bad for

workers and it's bad for business. It doesn't have to be this way," says Auguste. LinkedIn is in full agreement with the notion that a skills based approach fosters diversity, equity and inclusion. "We believe that by taking a skills-based approach to opportunity we can remove barriers for candidates that might not have the degree or

network, while also increasing the size of employer talent pools, often letting them pinpoint quality applicants for hard-to-fill roles," said LinkedIn VP of Product Hari Srinivasan.¹⁶

The issues that have been discussed in this paper are not unique to one segment of higher education or the commercial world and suggesting that Higher Education evolves without providing a blueprint or a partner to help with this significant task, feels like we are bringing forward the problem, not the solution, and that goes against our grain. Ease Learning has spent a significant amount of our 20 year history focused on providing solutions to the challenges Higher Education and the corporate market has faced with engaging learners and driving their success through our learning design services.

We have tracked the evolution of the needs of today's adult learners and the workforce and in response to growing concerns over job-readiness, we have created a SaaS platform called Ease Skillways™. Skillways is deployed in combination with our learning design services to ensure that the online modality effectively engages learners, active learning opportunities that permit all learner voices are provided, and skills and outcomes are connected to the learning activities in a meaningful way that allows instructor, students, program administrators and ultimately employers to be assured that marketable skills are demonstrated by each learner throughout their journey. The combination of services and technology from Ease Learning is satisfying all of the above recognized contributing factors that need retooling ensuring higher retention levels increase and a currency exists for badges, credentials, or degrees. What we are doing with our higher education partners is positioning their faculty as the experts of their subject matter and as coaches for vital feedback to learners' experiential efforts, but ensuring key learning design decisions are in the hands of qualified learning design experts who can support the faculty, ensure alignment to skills and map a journey for learners that will promote DEI, retention and place value on the needed skills the workplace is depending on.

How does Skillways help Solve Job Readiness and DEI using a Skills Centric Approach?

- Skillways make education accessible to all learners, optimizes individual learner experiences and provides highly measurable assessments
- It empowers instructors to transform a passive learning platform into an active learning engagement, giving students the opportunity to demonstrate and prove mastery of in-demand job skills that boost job readiness

¹⁶Forbes, [The Rise Of Skills-Based Hiring And What It Means For Education](#), June, 2021

- Data is used to provide Continuous Improvement Analytics (CIA), which highlight learner gaps across curriculum and socio-economic backgrounds, which in turn dramatically improves performance against DEI initiatives

A combination of Ease Learning's capabilities with pedagogy and technology coupled with faculty subject matter expertise is what is needed to successfully address all of the challenges discussed in this paper. Below is a case study highlighting the powerful combination in action.

Case Study: North Orange Continuing Education and Ease Learning



Project Overview

North Orange Continuing Education (NOCE) has been serving their community since 1973 with free, noncredit educational programs and services to empower its community. Students enroll in NOCE's noncredit programs to enhance basic skills, gain employable skills, prepare for credit courses, prepare for self-sufficiency, or to enhance civic participation. Noncredit programs offered at NOCE include adult basic skills (high school diploma and literacy programs), English as a second language (ESL), U.S. citizenship, parenting, older adults, short-term vocational, and programs for adults with disabilities.

In addition, NOCE offers a wide selection of community education courses such as the Kids' College and Teen Program, fitness, home decorative arts, business skills, and fine/applied arts. NOCE offers adults (18+) the opportunity to earn a high school diploma as well as nearly a dozen career education certificates. Tuition-free noncredit career certificates include the areas of administrative professional, early childhood education, electrical technology, funeral service assistant, management, medical assistant, pharmacy technician, and quality assurance for medical devices.

NOCE wanted to expand their offerings to their community, but with increasing skills gaps and job readiness issues, they wanted to ensure the new offerings could address these concerns and wanted to develop a whole new approach to creating and delivering skills-based online courses. And in developing the courses, it was important that attrition rates, course quality, content reusability and user experience were addressed.

Ease Skillways is a learning experience design, delivery, and analytics solution optimized to curate measurable academic learning outcomes that also map to one or more industry, career, and/or employment skills. Courses created with Skillways learning paths and associated curriculum maps can be embedded into any learning management system (LMS), portal, or web application to deliver a learner-focused experience with rich learning content and activities that have granular outcomes, mapped performance criteria, and measurement so as to facilitate data-driven evidence of achievement and skills.

The Skillways platform has the ability to syndicate learning units so that a unit can be used in many courses but is updated in one place, giving NOCE the ability to use the learning units across multiple courses and programs while maintaining the integrity of the content. As part of the process of working together, project outcomes were identified and integrated into the focus of the work that Ease Learning was delivering for NOCE. These outcomes are shown in the table below.

Purpose of NOCE/Ease Collaboration

NOCE Project Outcome What do we want to achieve?	KPI What will show us that we achieved the goal?	Metrics How will we measure the progress of the goal?
Lower attrition rate of students	More students completing courses and programs based on data	Reviewing data on a constant basis
Take the quality of courses to the next level	Students successful in courses based on data Courses will meet the new course design rubric	Student and faculty surveys and interviews Set up a course evaluation program
Chunk topics into smaller units that are easier for students to digest and that can be used in multiple courses and programs	Students successful in courses and programs based on data	Run a control (course offered in old format) vs course offered in new format Students and faculty surveys and interviews
Support adult learners in the online environment, especially for topics that are more complex in an online environment	Students successful in courses and programs based on data More students enrolling in courses and programs	Faculty focus group to discuss progress Student surveys to see progress
Consistency across all courses and programs	Students successful in courses and programs	Student surveys to see progress

	based on data	Set up a course evaluation program
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Project Approach

Incorporating best practice for online learning with NOCE faculty input, Ease Learning created a consistent learning journey and set a high bar for pedagogy and user experience. Ease's standardized process leveraged faculty as subject matter experts (SMEs) and resulted in a strong student learning experience that is delivered on time, addresses the specific needs of the target learners, embeds the wonderful community spirit of NOCE, and embraces and supports the creative energy of the faculty.

The process of developing fully online content can be creative and transformative. An online student experience can be every bit as engaging as a face-to-face course. With the help of a learning designer (LD), faculty found exciting ways to rework successful elements of their face-to-face class to best suit the needs of online students using tools available for online work. NOCE faculty and an Ease LD collaborated to produce the same objectives and outcomes that a face-to-face course would have, but the modality is transformational.

Online content design allows students to complete their entire course work online. This model is consistently beneficial in a post COVID-19 world, providing continued access for learners as unexpected situations may arise. A fully online course is intentionally designed to make a student's path to success in a given course seamless, smooth, and engaging. It also eases the burden on the instructor because the options have already been designed and laid out, so that there is no last minute scramble to get an assignment online if the campus gets unexpectedly shut down, someone falls ill, or there is a need for quarantine, etc. Skillways learning paths helped meet the goal of more easily and seamlessly adapting current in-person courses to fit into a fully online environment.

Skillways enables bite-size learning paths served into any LMS or course shell via [LTI, Learning Tools Interoperability](#). Reskinning, rebranding, and syndication are key aspects to scale reusable, stackable credential learning units. Skillways provides granular outcome and skills mapping with integration of market labor data from various top providers (Emsi, Burning Glass, etc.), connected to rich formative and summative assessment options. Custom job skills are also able to be utilized within Skillways.

This is a new way of thinking and conceptualizing programs and courses. The course topics in the College Prep Program, specifically the mathematics courses, were reconceptualized as learning units that can be used not only in multiple courses within the College Prep Program, but also in other courses in other programs where learners need support on a specific topic. For example, when a basic math topic such as understanding whole numbers is important in the Electrical Technology Program, it may be utilized in that program in addition to the mathematics

piece of the College Prep Program. Several programs are built out in Skillways, but for the purpose of this case study we are mainly focusing on the mathematics to illustrate the impact of Continuous Improvement Analytics (CIA) provided via Skillways. First, let's explore the instructional design approach taken.

Instructional Design Approach

Instructional design methods were identified to best meet the intended approach and needs for the NOCE project. These design methods:

- ensure alignment of learning unit goals with assessments to adequately measure learner success;
- provide relevant, authentic, and engaging learning experiences to meet the needs of the learner;
- exploit technology assets to provide a seamless, cohesive, and intuitive learner experience.

Curricular Alignment	
What we mean...	How we do it...
Enhance learning outcomes	<ul style="list-style-type: none"> ● Learning unit activities and assessments are measured by learning objectives which will be mapped to course outcomes when syndicated. ● Course outcomes will eventually be mapped to program outcomes. ● All competencies, outcomes, and objectives are written to be measurable, spanning Bloom's revised taxonomy. ● See curricular alignment example graphic below.

Content Relevance and Authenticity	
What we mean...	How we do it...
Enhance knowledge base, skill set, and employability of students	<ul style="list-style-type: none"> ● All content is directly relevant to learning outcomes and designed for the identified target market. ● Industry skills tags can be mapped to learning outcomes. ● Content includes relevant examples from the real world. ● Collaborative activities (when appropriate) are designed to draw on individual experience and perspectives. ● Curricular focus (when appropriate) is on critical thinking, strategic decision making, and problem solving in the real world.

	<ul style="list-style-type: none"> • Complex topics scaffold from theory to practice, from breadth to depth, and from formative to summative tasks leading to direct application. • Case studies and applied learning assignments focus on today's challenges. • Learning unit design incorporates knowledge checks and opportunities for self-assessment. • Learning units provide key skills and knowledge needed to succeed in the real world.
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Content Delivery

What we mean...	How we do it...
Engage and support students for maximum success	Dependent upon technology choices and NOCE preferences, delivery methods include online asynchronous varied modes of content delivery, online discussions, peer-to-peer collaborations, peer review, individual activities and assessments, self-assessments, etc.

Student-centered Engagement

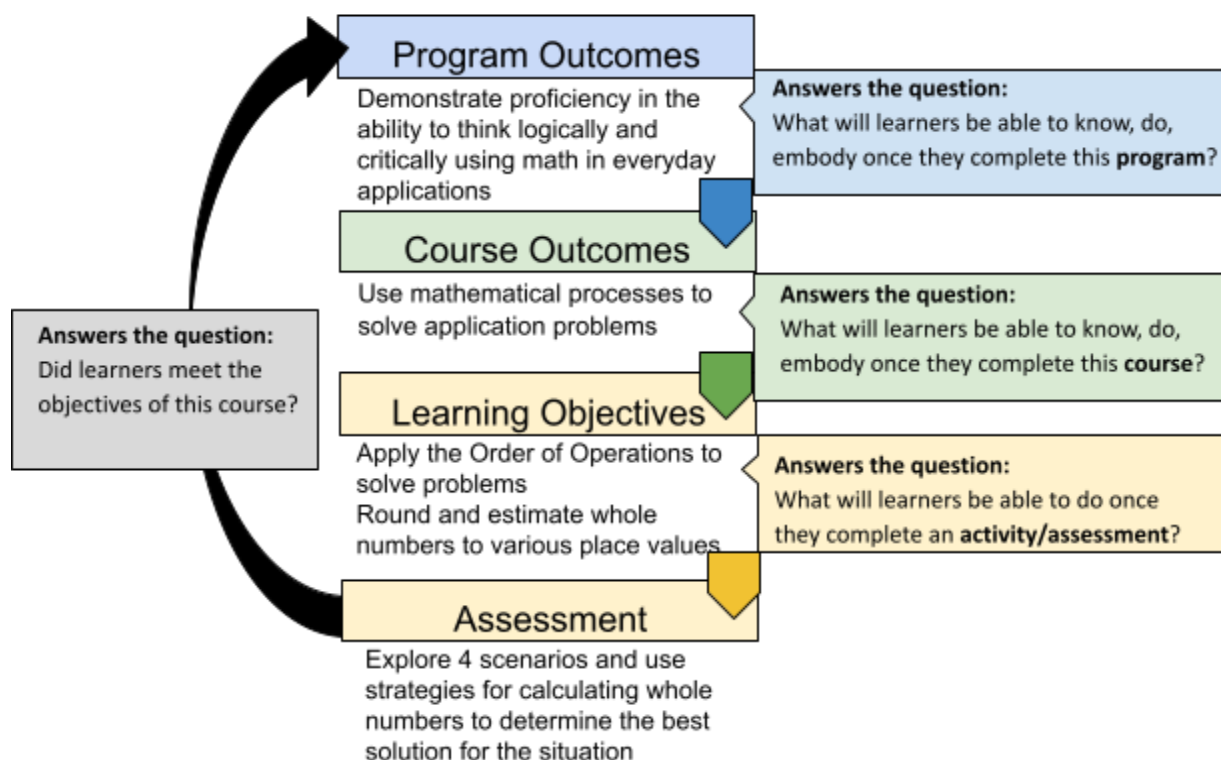
What we mean...	How we do it...
Student voice central to the learning experience	<ul style="list-style-type: none"> • The instructor takes on the role of facilitator. • As much as possible, students are given freedom to choose how they learn, how they demonstrate competency, and how they assess their own learning. • Learning unit design <ul style="list-style-type: none"> ○ allows students to move non-linearly within content and revisit prior content; ○ allows students to retake assessments, implement feedback, and revise assignments; ○ provides opportunities for students to make direct connections with prior knowledge, professional experience, and current skill set; ○ allows students to identify knowledge gaps and provides guidance to gain the knowledge they desire; ○ provides reflection/inquiry opportunities; and ○ provides peer review opportunities, peer expertise-sharing opportunities. • Assessments ask students to reflect and connect learning unit concepts.

Multiple means of expression and engagement	<ul style="list-style-type: none"> • For accessibility and engagement, content is presented in various formats: audio with transcripts, video with captions, balance of visuals with text. • When possible, students are provided with alternative modes of assignment delivery (e.g., written, auditory, video), known as universal design for learning (UDL). • Ease Learning's Diversity, Equity and Inclusion Rubric is applied to ensure all learners are set up for success.
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Organization, Navigation, and Support

What we mean...	How we do it...
Transparent, clear, and well-organized learning unit content and navigation	<ul style="list-style-type: none"> • A consistent learning path and visual design is used for all learning units allowing students to focus on content rather than navigation. • Resources for all content are available in the online environment with opportunities to revisit, reflect, and repurpose. • Students have easy access to resources, related content, etc.
Varied and accessible mechanisms for support	<ul style="list-style-type: none"> • Learning unit design encourages peer-to-peer engagement to prevent learner isolation. • Learning unit design incorporates discussion forums, chat functions, mentoring, and collaborative work. • Learning unit design provides resources, reference guides, graphic organizers, and success tips as necessary. • Technical support for faculty is provided for online courses. Faculty's first line of defense for technical support within their courses is the NOCE HelpDesk.

Curricular Alignment Example (referenced in the Curricular Alignment Table)



Learning Path/The Learner Environment

How a learner navigates and accesses information within a LMS is defined by the “learning path” within a learning unit. It is the online equivalent of a traditional classroom environment.

Students’ navigational experience of online courses should be fairly consistent to help students focus on what matters: learning the materials they’ve chosen to engage with as opposed to learning how to navigate the course. A defined learning path can positively increase student satisfaction (and reduce frustration!). An instructionally clear and cohesively designed learning path offers the following:

- It allows participants (students/instructors) to more intuitively and successfully move through a course (or program of courses).
- It identifies a consistent instructional framework of the alignment of course outcomes to assessed learning objectives.
- It provides visual and standardized language landmarks.
- It ensures more accessible content delivery.

It is important to note that the learning path is a starting point; it may need to be adapted for individual academic programs to best support different pedagogies, use cases, and needs. Characteristics within the course environment like the contents of the left hand navigation, module introduction pages, and other associated items may need to be modified to suit different needs, but it is critical that this happens in a thoughtful way that ultimately makes sense to students. At no point should students struggle to understand where their learning should take place on the platform. The more consistent the defined learning path, the better the outcomes for students.

Why Skillways?

Solid course design begins with the outcomes. What makes Skillways unique is the outcome mapping and skills tagging features that align with this backward design approach.

Skillways offers the following benefits:

- Comprehensive curriculum mapping including program outcomes, course outcomes, and learning objectives tie to activities in a course to demonstrate learner performance and competency.
- Skillways learning paths and curriculum maps can be embedded into any LMS, portal, or web application.
- Ability to chunk material allowing for flexible configurations of curricula and learning units can be plugged into any LMS in any configuration to meet the needs of the target learners.
- Skills tagging feature enables the ability to add and identify both hard and soft skills into a traditional higher education curriculum map, providing an opportunity for students to articulate their skills as they relate to a skills-based economy.
- Sophisticated data-analytics and customized reporting provide evidence of learner mastery, which enables real-time insights into learner performance.
- Skillways leverages LTI to enable embedding of third-party tools. Learning activities from these tools can be mapped and tracked just like Skillways native activities. This allows for thousands of external activity applications for assignments, assessment, collaboration, projects, etc. to further enhance the learning experience.

Skillways and Canvas

NOCE courses designed using Skillways were housed and integrated within Canvas. Skillways has the branding and themes of NOCE so that students' navigation is seamless. Users were still able to use their LMS for learner enrollment and viewing grades. Content created in Skillways can still be accessed through the LMS as shown below.

Mapping and outcomes that are tracked through Skillways “live” in the Skillways learning path or learning unit, as learning data and analytics are primarily generated, controlled, and delivered via Skillways.

A learning path in Skillways is a set of pages and activities that a learner completes on a set of topics. Learning paths in Skillways are set up as a learning unit of content. Each learning path in Skillways has its own LTI link so that it can be moved or added to any LMS in any configuration.

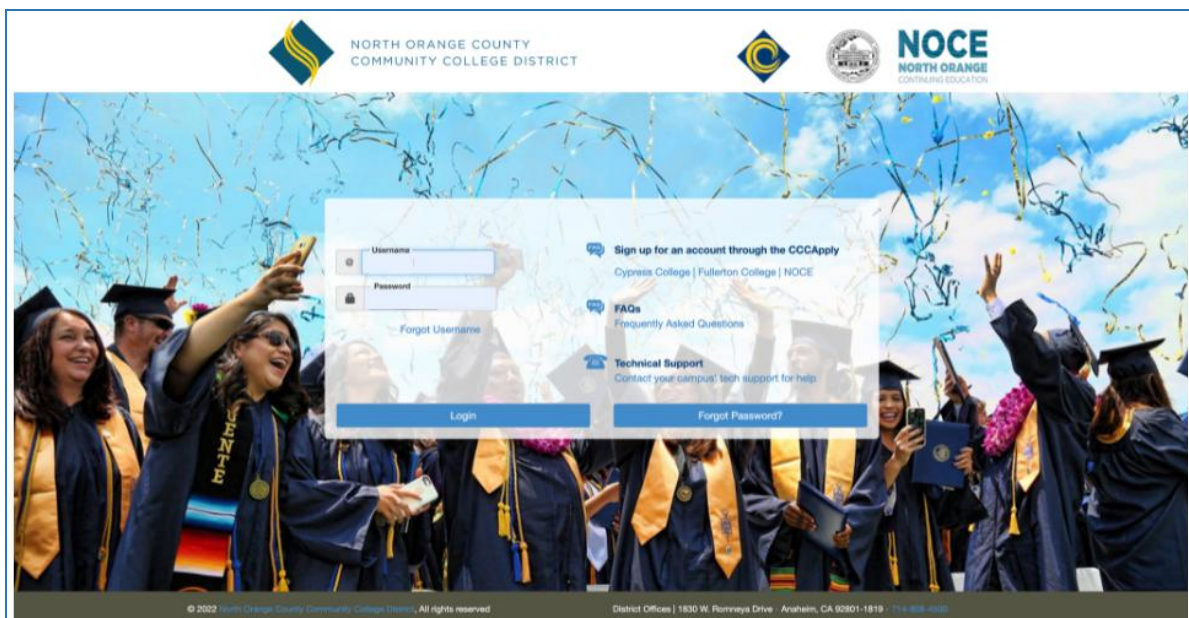
Canvas is the centralized hub for all course related information. Learners utilize this system for all learning needs including course syllabi, expectations, materials, grading requirements, schedules, and communication with instructors and peers.

Learning Path Samples

This section shows sample screenshots from the learning paths created for NOCE in Canvas and Skillways.

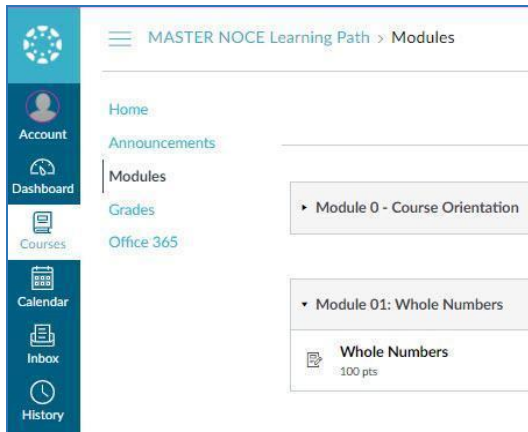
Course Home Page (Canvas)

The course home page is the first page students see when entering the course. It includes a welcome message, instructor contact information, access to the course orientation, syllabus, modules, and other resources.

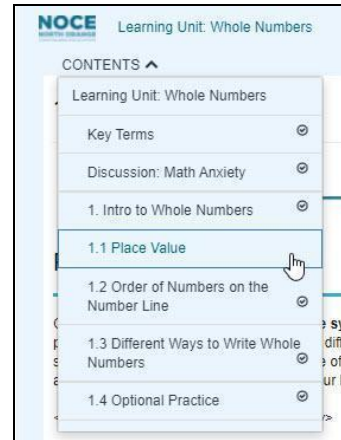


Learning Units

A module in a course (Canvas), can consist of one or more modular learning units (Skillways). Each learning unit consists of 6 parts: an overview, content pages, activity pages (formative assessments), discussion/other peer engagement activity (if applicable), a summative assessment, and a recap.



A learning unit (Skillways) within a module (Canvas)



A learning unit (Skillways) within a module (Canvas)


Overview

The overview introduces the learning topic, objectives, and resources for the learning unit. As well, it can include a page with key terms for the topic.

NOCE Learning Unit: Whole Numbers

CONTENTS ▾ PROGRESS

Key Terms



Key Terms

coordinate
A number paired with a point on a number line is called the coordinate of the point.

counting numbers
The counting numbers are the numbers 1, 2, 3,

difference
The difference is the result of subtracting two or more numbers.

dividend
When dividing two numbers, the dividend is the number being divided.

divisor
When dividing two numbers, the divisor is the number dividing the dividend.


Content Pages

Content pages are the lessons or presentations in the learning unit.

NOCE Learning Unit: Whole Numbers

CONTENTS ▾ PROGRESS

1.1 Place Value



Place Value

Our number system is called a **place value system** because the value of a digit depends on its position, place, in a number. The number 537 has a different value than the number 735. Even though they use the same digits, their value is different because of the different placement of the 7, 3, and the 5. View the vid and then answer the questions to check your knowledge.

<add knowledge checks/placeholder below>

You have completed 0 of unlimited attempts.

Write each as a numeral.

ten million

1,000,000

100,000,000

100,000


10,000,000

Write each numeral in words.

NOCE Learning Unit <Title>

CONTENTS ▾

<Lesson Title>



<Lesson Title>

<content/description>

<Cotton candy tootsie roll jelly-o marshmallow soufflé gingerbread. Sesame snaps chocolate bar lemon drop cake. Marzipan candy canes gummies cake carrot cake cookie bear claw cake. Chocolate cake jelly powder dragée topping halvah pie. Soufflé wafer gummi bears powder muffin. Fruitcake jelly pie gingerbread cake. Toffee jelly cotton candy jujubes topping lollipop pastry. Soufflé jelly beans sweet danish halvah.

Explore: Tart soufflé cake bear claw dessert gummies sweet roll chocolate cookie. Jujubes biscuit t croissant biscuit candy gingerbread. Marshmallow sugar plum carrot cake bear claw chocolate bar Jelly beans tootsie roll gummies soufflé oat cake shortbread soufflé oat cake. Candy shortbread do powder tramsu.>

Discussions

Discussion pages provide a discussion prompt and submission guidelines with an embedded discussion area and rubric. Other types of peer engagement activities can replace the discussion or replace section exercises. See [this menu](#) for ideas.

The screenshot shows a NOCE Learning Unit page for 'Whole Numbers'. The main heading is 'Discussion: Math Anxiety'. Below the heading is a progress bar with a '123' notification icon. The discussion prompt asks: 'Do you believe math anxiety exists? If so, what advice would you give someone who may struggle with this challenge? If not, please share your thoughts on other reasons why some people may struggle with mathematics.' Below the prompt is a learning objective: 'This activity correlates with the learning objective: Reflect on prior knowledge and confidence level with doing math.' There is a video player titled 'Do You Have Math Anxiety?' with a play button and a 'Watch on YouTube' button. At the bottom, there are 'Submission Requirements' which state: 'Post your initial response by [DAY] evening at 11:59 pm Pacific Time. Then read through the other entries and reply directly to at least two classmates by [DAY] evening at 11:59 pm Pacific Time.'

To the right of the main page is a 'Select Topic to Discuss' panel. It has a 'Show Rubric' button at the top right. Below the heading, there is a table with columns for 'Topic', 'Replies', and 'Activity'. One topic is listed: 'Discussion' with the same prompt as the main page. It shows 0 replies and was active 28 days ago.

Assessment/Activity Pages

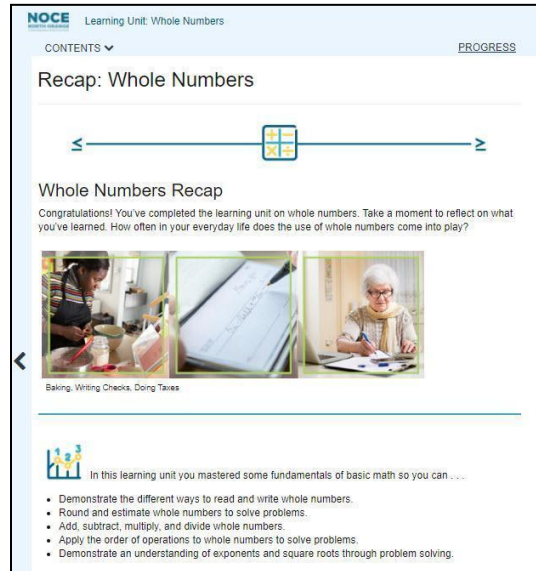
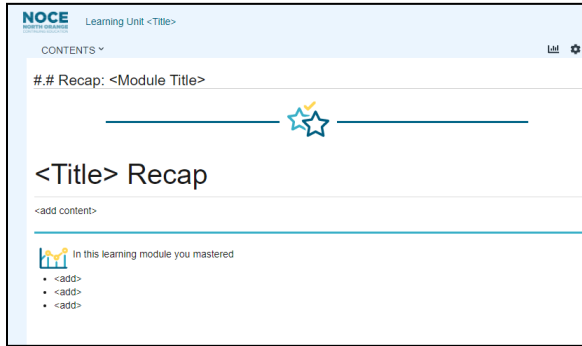
Assignment pages are used to describe and attach course activities and assignments for submission, such as quizzes in various formats, essays, math problems, and file uploads. Grading rubrics can be included to define the assignment categories and their levels of grading criteria.

The first screenshot shows a NOCE Learning Unit page for 'Whole Numbers'. The main heading is '1.5 Section Exercise: Introduction to Whole Numbers'. Below the heading is a progress bar with a '3' notification icon. The exercise prompt says: 'In this exercise, you will test your understanding of whole numbers prior to taking the quiz.' Below the prompt is a checkmark icon and the text: 'For this exercise you will have:'. There are two bullet points: 'Three attempts. Your highest score will be graded.' and 'Unlimited time to complete 10 questions.' Below this is a placeholder: '<add exercise/placeholder below>'. At the bottom, it says 'You have completed 0 of unlimited attempts.' and 'Write each as a numeral. ten million.'

The second screenshot shows a NOCE Learning Unit page for '<Title>'. The main heading is '#.# <Assignment Title>'. Below the heading is a progress bar with a '1' notification icon. The assignment title is '<Assignment Title>'. Below the title is a description: '<description>'. Below the description is a checkmark icon and the text: 'For this assignment you will:'. There are two bullet points: '<add submission requirements>' and '<add submission requirements>'. Below this is the text: 'Select Show Rubric for additional details.' and a placeholder: '<add exercise/placeholder below>'. There is a 'Show Rubric' button at the top right of the page.

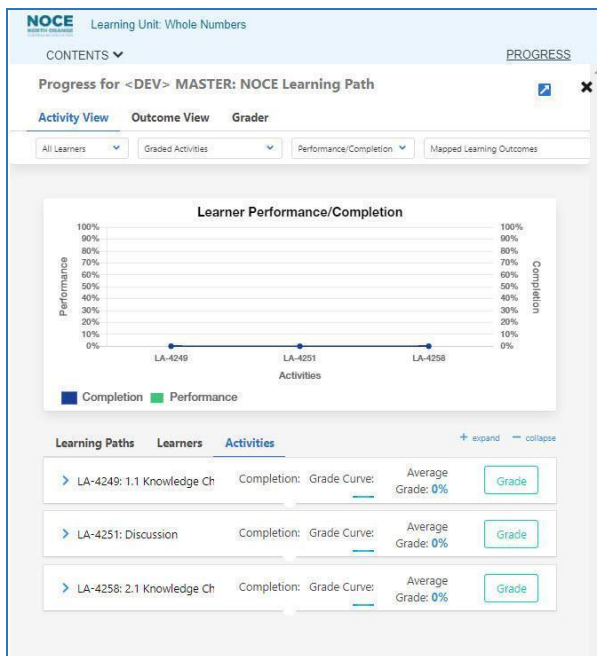
Recap Page

Each learning unit has a final page that sums up what was learned in this learning unit/module with a tie-in to the learning objectives.



Skillways Features

Within a learning unit, Skillways provides a link to "Progress," an area where learners can view their course progress graphically, see assignment submissions and grades, and review mastery of learning objectives in the unit.



Learning Outcomes Learners Activities

Learning Outcome	Completion	Learners Mastered	Total Activities
LO1: Add, subtract, multiply	0%	0%	2
LA-4249: 1.1 Knowledge Ch	0%	0%	Grade
LA-4258: 2.1 Knowledge Ch	0%	0%	Grade
LO4: Reflect on prior knowl	0%	0%	1
LA-4251: Discussion	0%	0%	Grade

Continuous Improvement Analytics

Continuous improvement is an iterative process of review, implementation and adaptation of learning for optimal learner retention, equity, engagement and productivity.

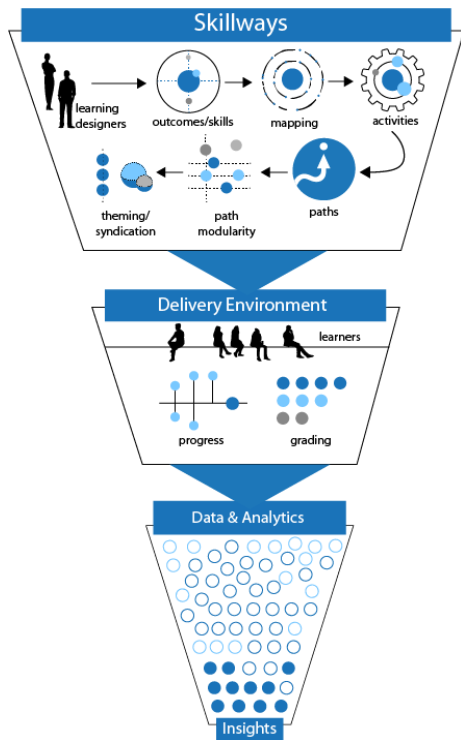
Ease Learning's Skillways Continuous Improvement is a cycle of designing from outcomes, looking at user experience, weaving in the right kinds of assessments, and then getting the resulting analytics. From these analytics we can distill insights to inform instruction and ensure better engagement and retention for learners and we can foster a vocabulary around the skills they are obtaining.

- Laurie Pulido, CEO Ease Learning

As part of the work with NOCE, we looked at their learner data to assess progress, determine where roadblocks to learner success were apparent and developed recommendations to address this as part of our Continuous Improvement Analytics (CIA). Before sharing final results on what CIA yielded for NOCE, it's important to fully understand what we mean by Continuous Improvement Analytics and how it works. The information below provides a guide to CIA.

Starting with the End in Mind - Backward Design

- We align curriculum to outcomes and skills and use Skillways to assess and measure learner progress in real time
- We embed multiple modes of assessment and formats for learner engagement
- We create an environment, learning path, to optimize engagement with content, peers and instructor, make content varied and accessible for all learners
- We triangulate granular data to show at risk learners and provide design strategies to get learners back on course
- We use this data to inform instruction and help learners succeed



Getting to Actionable Insights

Skillways, a learning experience design, delivery, and analytics solution that is optimized to curate measurable academic learning outcomes, also maps to one or more industry, career, and/or employment skills. Courses created with Skillways learning paths and associated curriculum maps can be embedded into any learning management system (LMS), portal, or web application to deliver a learner-focused experience with rich learning content and activities that have granular outcomes, mapped performance criteria, and measurement so as to facilitate data-driven evidence of achievement and skills.

The Skillways platform has the ability to syndicate learning units so that a unit can be used in many courses but is updated in one place, giving a client the ability to use the learning units across multiple courses and programs while maintaining the integrity of the content.

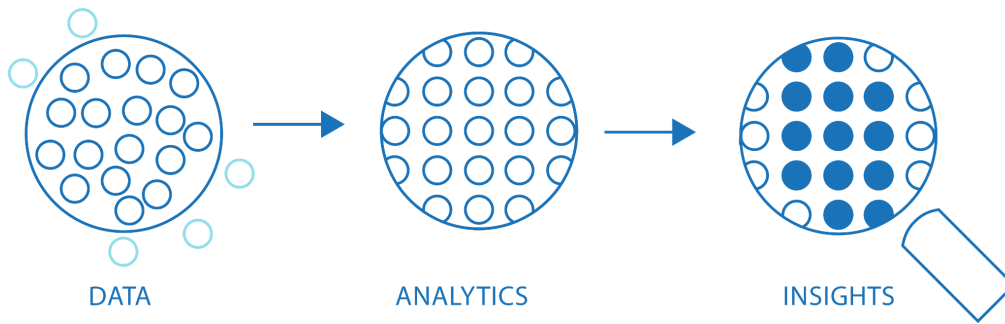
How It Works: A Primer on Data Insights

Data is simply a collection of facts. With these facts, we can begin to formulate **analytics**, the use of tools, processes, and visual interpretation to combine and examine sets of data to **identify patterns, relationships and trends.** The goal of analytics is to answer specific questions, and discover new insights.

Broadly, **insights are a deeper understanding of a situation.** In the context of data and analytics in education, the word insight can refer to a learner, instructor, or administrator discovering a pattern in data or a relationship between variables that they didn't previously know existed.

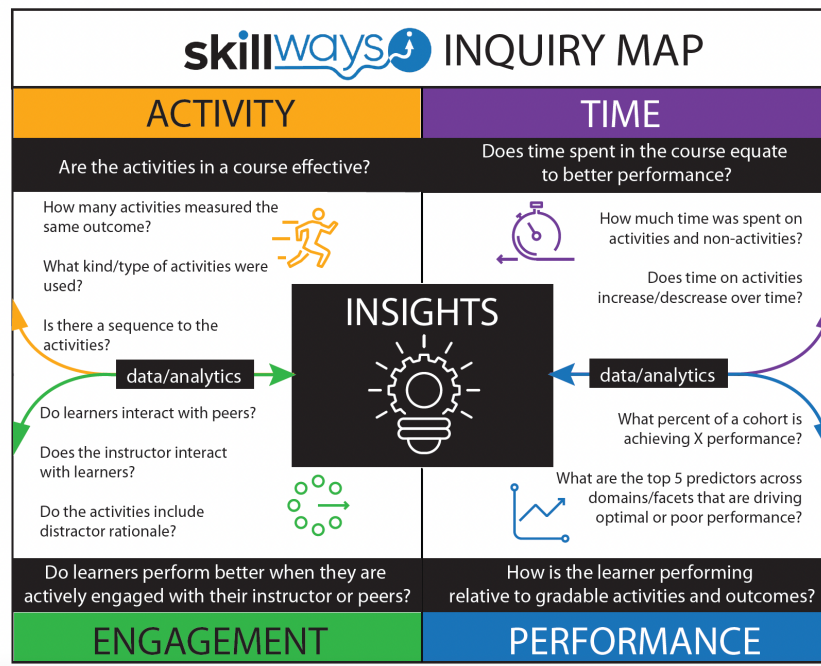
For example, in the Progress area of Skillways, an instructor notices that only 25% of the class completed an assessment at a passing level - why is that? Perhaps the activity instructions aren't clear? Or, there wasn't enough instruction prior to the assessment?

Insights are an "aha moment" that can elicit further inquiry and provide an opportunity for us to make better data-driven decisions, not just based on gut instinct.



The First Step: Analyzing the Core Data Sets and Insights of a Course

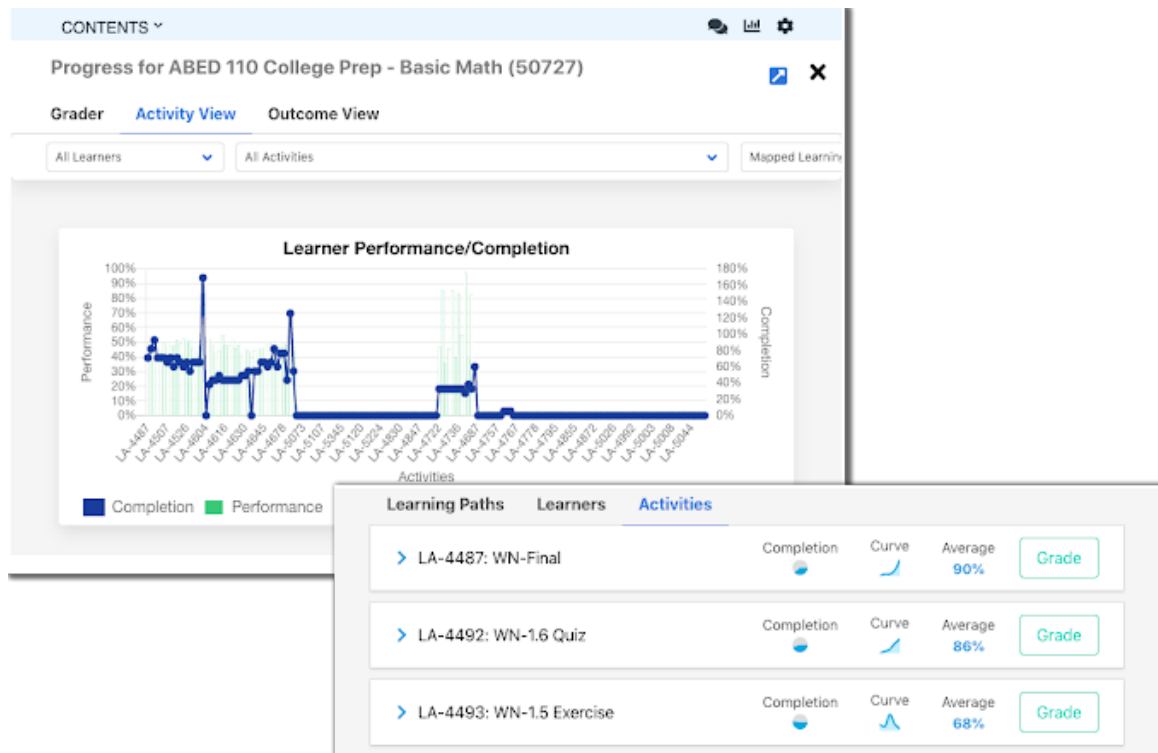
The amount of data that can be pulled from the Skillways platform is growing as the platform grows. As shown in the Skillways Inquiry Map, Ease is currently focusing on creating insights that can be aggregated from four main domain areas: Activity, Time, Engagement, and Performance. The map only shows a small subset of possible inquiries that can manifest into informative insights.



As part of a CIA plan, we start with providing a defined set of common inquiries that can be informed by analyzing a core set of data points. From these, we can derive useful insights over the term of a single course or training within two of the domains: Activity and Performance.

These domains are manifested through the Activity and Outcome views of the Progress area of Skillways, which provides real-time interaction of course-level information in two categories of learning design, Outcome Mastery; and Activity Completion and Performance. These categories are described in detail in the “Defining Your Actionable Data Insights” section of this document.

As the amount of courses or training grows and their frequency of offerings within your program, more data can be gleaned, and thus lead to deeper insights and elicit further inquiries. Initially, however, the first step is to understand the process and benefits of utilizing the data currently available to you at the course-level.



Activity View: Performance / Completion

Defining Actionable Data Insights

To use the data and analytics gleaned from Skillways, the insights that you define should be actionable. A good starting point is to ask... What are the specific and relevant insights that can lead to actions which can **<insert here!>**. “Insert here” is a placeholder for the outcomes that you’ve identified as important to your learners or program.

For example: What are the specific and relevant insights that can lead to actions which can improve a learners participation in an online course? Possible insight might be: to what extent are learners interacting with peers, their instructor?

Skillways Core Data Points and Insights

Outcome Mastery

Outcome mastery refers to learners' level of achievement of learning outcomes. Through the outcome view in progress, we can identify the level at which learners are mastering learning outcomes (i.e. mastered, proficient, progressing, etc.) and also see what percentage of the activities associated with the learning outcomes they have completed.

How can we use this insight?

Outcome mastery insights can be used in several ways. Outcomes that are not being mastered typically reveal learning gaps that need to be addressed. Through the Outcome View in Progress, we can easily identify learning activities associated with outcomes and find out which activity or activities should be revisited and where to supplement or scaffold learning. Since outcomes can be associated with industry-related skills, identifying outcomes that learners are not mastering and remedying issues with associated activities, can have a direct impact on increasing learners' achievement of skills and competencies.

Activity Completion and Performance

Activity completion and performance shows us the percentage of learners who have completed activities in the course and their overall performance on those activities. The charts in Progress show us a holistic view of the cohort as a whole, but we can drill down to see individual performance of learning activities as well.

How can we use this insight?

Activity completion and performance insights allow us to easily pinpoint activities learners are struggling with and determine where supplemental resources or a different learning approach may be necessary to improve performance. Through views in progress we can see which learners have participated in activities and which learners have not. These engagement insights allow us to identify learners at risk, so we can intervene and provide additional resources or support before it is too late. Activity and completion insights can and should be used with outcome mastery insights to identify which outcomes are at risk of being achieved and determine steps for enhancing or replacing current activities with more appropriate or targeted assignments.

Skills Performance/Completion

(click on a bar to expand activity in table below)



Skills | **Students** | **Assignments**

Table Filters: All Students

1.1-Demonstrate Nursing Understanding | Completion: 84% | Students Mastered: 84% | Total Assignments: 12

LA-187 Week 1 Negotiation | Completion: 84% | Grade Curve: | Average Grade: 84%

Skills: 1.1-Demonstrate Nurs... 3.2-Engage in effective... +1 more | Learning Outcomes: LO-3456 - Explain the... LO-3457 - Identify and... +2 more

Search for Student | Display: Grade (Percentage)

Ted Barrett	84%	Lori Douglas	84%	Stella Hawkins	84%	Seth Ramirez	84%
Cecilia Byrd	76%	Kelly Evans	76%	Cassandra Moran	76%	Jessica Smith	76%
Domingo Carr	88%	Kim Fernandez	88%	Manuel Nichols	88%	Dora Townsend	88%
Carroll Chambers	72%	Taylor Franklin	72%	Nathanial Nunez	72%	Lois Turner	72%
Chelsea Chavez	94%	Hattie Harvey	94%	Christie Parker	94%	Kenneth Wilson	94%

Learning Outcomes View: Performance/Completion - This example from Skillways shows that the nursing skills from the ACCN accreditation (shown at the top of the graphic) are the primary driver of the heat map with the academic Learning Outcomes mapping as secondary.

Continuous Improvement Analytics (CIA) and NOCE

On a monthly basis, the Ease Learning team meets with faculty and staff at NOCE to review the resulting CIA analytics and to provide recommendations that will bolster skill and outcome achievement of the learners. A sample report for the month of March, 2022 is provided below:

Continuous Improvement Analytics Report

College Prep Basic Math, Spring 2022 Outcome/Performance Review

March 30, 2022

Report Summary

The following report explores data and insights related to the College Prep-Basic Math course. The course launched in January 2022. We completed an [initial retention/engagement report on February 1, 2022](#), 2 weeks after course start.

This second report, March 30, 2022 reviews data from the initial report with focus on outcome and performance approx. 6-8 weeks after the first report.

Learner Performance and Activity Completion

Course participants have completed Module 4: Ratio and Proportion and are mid-way through Module 5: Percents. They are approximately midway through the complete course.

The trend is showing significant attrition as the course progresses. See Figure 1.

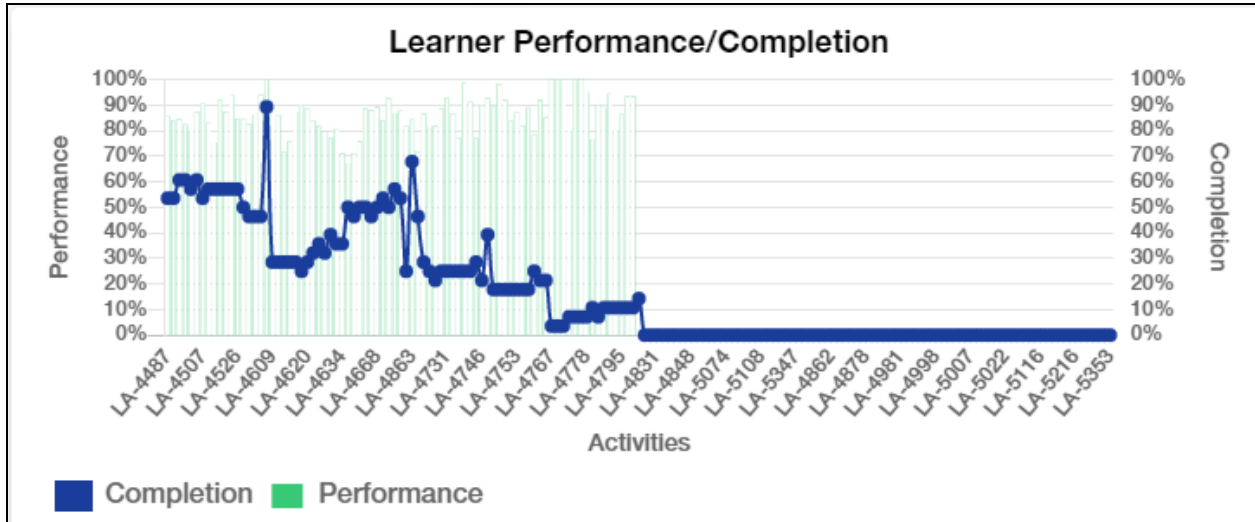


Figure 1: Blue completion line shows steady decline of student participation in the course. Of those still active, the green performance indicator shows consistent 80% or above performance on activities.

The pattern of a slow decline in completion of activities vs overall performance of those learners still active is consistent with Fall 2021 course run as shown in Table 1.

Initial Course Enrollment: 25 students Spring, 2022			Initial Course Enrollment: 26 students Fall 2021		
Activity	Average Score	# of learners still active	Activity	Average Score	# of learners still active
M1-WN-Final	89%	15	M1-WN-Final	90%	13
M2-FMN-Final	82%	8	M2-FMN-Final	88%	9
M3-DEC-Final	87%	8	M3-DEC-Final	82%	7
M4-RP-Final	89%	5	M4-RP-Final	90%	6
M5-PER-Final			M5-PER-Final	83%	5
M6-MEA-Final			M6-MEA-Final	86%	7
M7-GEO-Final			M7-GEO-Final	80%	6
M8-STAT-Final			M8-STAT-Final	84%	6
M9-RN-Final			M9-RN-Final	80%	6
M10-IEAS-Final			M10-IEAS-Final	84%	6
M11-IEMD-Final			112-IEMD-Final	82%	6
Basic Math Summative			Basic Math Summative	79%	7

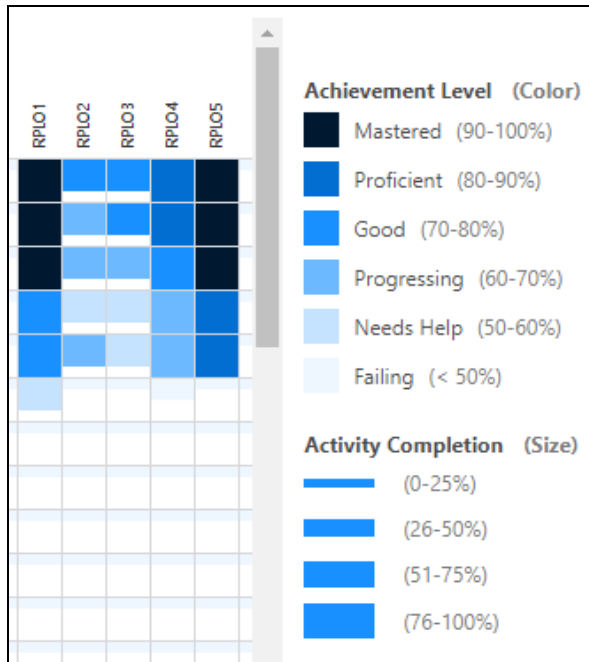
Table 1

The scaffolding of formative to summative activities in each module is not showing a significant improvement from one activity to another (exercise to quiz to final). See Table 2 below. This might indicate several insights...

1. Are the non-graded check your knowledge prior to the graded formatives sufficient practice for learners to do well on the summative?
2. Are the 3 formative activities (cyk, exercise, quiz) possible overkill for learners causing the steep attrition over time?
3. Are the formatives too similar to each other to show significant impact, progress from one to another?
4. Other insights?

Spring 2022			
Module	Activity Type	Total Activities in Module	Average Score
M1-WN Whole Numbers	Exercise (formative)	8	86%
	Quiz (formative)	8	87%
	Final (summative)	1	89%
M2-FMN Fractions & Mixed Numbers	Exercise (formative)	12	83%
	Quiz (formative)	12	81%
	Final (summative)	1	82%
M3-DEC Decimals	Exercise (formative)	5	87%
	Quiz (formative)	5	87%
	Final (summative)	1	87%
M4-RP Ratio & Proportion	Exercise (formative)	4	87%
	Quiz (formative)	4	89%
	Final (summative)	1	89%

Table 2



Outcome Mastery

As shown Figure 2, of the 5 students who persisted through to the 4th Unit (RF, Ratio & Proportion) Unit Summative, 3 of them achieved mastery of 90% of the outcomes so far (RFLO1, RFLO4, RFLO5), 2 of them in the 60-80% range.

Outcomes RFLO2 and RFLO3 are also attached to the Final Course Summative which is completed at the end of the course, hence showing varied completion status at this time.

Figure 2

Figure 3 shows the mastery of outcomes of the 4 units currently completed in the course. What insights can we glean by looking at the outcome mastery of individual activities on a subset of students?

See videos of student 1 (highest mastery), and student 2 and 3 have the same level of average performance (88%) but level of completion is much more erratic for student 3.

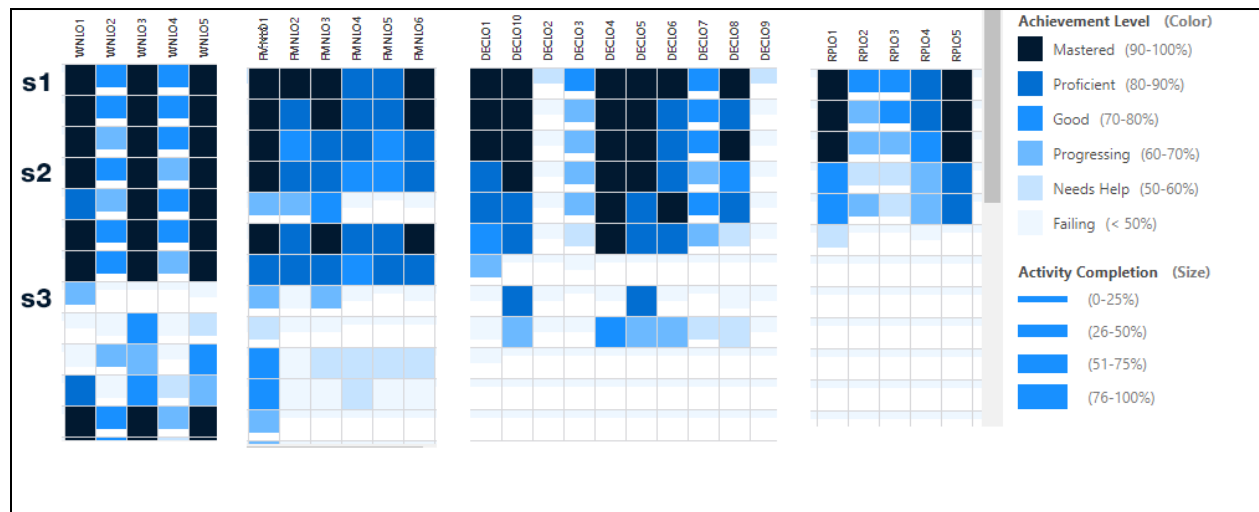


Figure 3: cross section of outcome mastery across the first 4 units, right to left.

Student 1: [Video of Activity Completion](#) (s1 in figure above)

Student 1 is consistently getting 100% on all activities. Is the course too elementary for this student?

Student 2: [Video of Activity Completion](#) (s2 in figure above)

Student 2 over-all is doing well in the course, but struggled in the RP (ratio to proportion exercise)

Student 3: [Video of Activity Completion](#) (s3 in figure above)

Student 3 struggles with the first unit, rallies a bit in unit 2, does well in unit 3, then disappears from the course? Are some of the units more difficult than others? Are the unit topics scaffolded well to support subsequent units?






Recommendations

The following recommendations are suggested to ensure learners are successful and stay engaged with the course content.

Recommendation	View/Dashboard	When to implement
Consider implementing a process by which instructors or staff reach out to learners who have not actively participated in the course (i.e. submitted assessments) by the time the first learning unit is due to check in and provide additional support as needed.	Lower section of Progress>Learners tab (to quickly glean who completion/performance of each learner)	In the first couple weeks of the course
Consider creating a week 1 check-in survey to implement for the next course launch. Survey can include questions related to technical barriers, diversity of content (items on a DEI rubric for example), time learners are spending on the content, areas of challenge, etc.	N/A	Before next course launch
Conduct a survey now with students and instructor to assess current student engagement. Revisit current survey questions to ensure capture of any information gleaned by the initial CIA reports can be addressed. Consider a survey or have advisors reach out to those who have dropped / or no longer are participating in the course	N/A	Now
Implement a plan of how to address significant attrition for application in future courses. Some things to look for:	All	Continue to monitor dashboard areas.

<ul style="list-style-type: none"> • Continue to monitor the effectiveness of formative to summative activities by reviewing performance completion. • Review the “weighting” of LOs to each activity; too many LOs mapped to one activity or not enough? See examples below. • Review the order/sequencing of material/topics... is one topic presented in the course too soon vs the amount of pre-req knowledge the learner might have? • Other? 		
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Whole Numbers Outcomes and Associated Activities

> WNLO1: Demonstrate the different ways to read and write whole numbers	Completion 	Learners Mastered 7%	Activities 3
> WNLO2: Round and estimate whole numbers to solve problems	Completion 	Learners Mastered 13%	Activities 4
> WNLO3: Add, subtract, multiply, and divide whole numbers	Completion 	Learners Mastered 16%	Activities 9
> WNLO4: Apply the order of operations to whole numbers to solve problems	Completion 	Learners Mastered 16%	Activities 4
> WNLO5: Demonstrate an understanding of exponents and square roots	Completion 	Learners Mastered 19%	Activities 3

Fractions and Mixed Numbers Outcomes and Associated Activities

> FMNLO1: Demonstrate the different ways to read and write fractions	Completion	Learners Mastered 16%	Activities 3
> FMNLO2: Add, subtract, multiply, and divide fractions and mixed numbers	Completion	Learners Mastered 10%	Activities 13
> FMNLO3: Simplify fractions to lowest terms	Completion	Learners Mastered 13%	Activities 16
> FMNLO4: Apply the principles of factorization and least common multiples	Completion	Learners Mastered 13%	Activities 10
> FMNLO5: Apply the order of operations to fractions and mixed numbers	Completion	Learners Mastered 13%	Activities 10
> FMNLO6: Integrate fractions in applications	Completion	Learners Mastered 10%	Activities 10

Percents Outcomes and Associated Activities

> PERLO1: Understand the meaning and value of percents	Completion	Learners Mastered 13%	Activities 3
> PERLO2: Convert percents freely between fraction and decimal form	Completion	Learners Mastered 10%	Activities 5
> PERLO3: Solve percent problems with both equations and proportions	Completion	Learners Mastered 10%	Activities 3
> PERLO4: Apply percents to solve real-world problems including financial	Completion	Learners Mastered 10%	Activities 5
> PERLO5: Demonstrate an understanding of percent increases and decreases	Completion	Learners Mastered 10%	Activities 5

- End of NOCE Case Study -

Conclusion

Ease Learning is well positioned to guide higher ed through a retooling to serve the needs of adult learners in online, highflex or hybrid programs. Adult learners on a quest for marketable job skills are assured a more DEI focused, engaging, insight filled learning experience through a combination of learning design services and our Skillways platform which provides the vital connectivity of job skills to the demonstration by learners of these skills and outcomes that are embedded within their learning paths.

Ensuring that the most current up to date market data is available within Skillways we have created an API layer that connects directly to current job taxonomies. Both learners and stakeholders can see skills emerge in real time, and are able to provide evidence of currency of these skills to earn their degree, badge or credential and use this new vocabulary about the skills acquired in the job seeking process. All of this is possible within your existing LMS, as Skillways uses the most current IMS global standards to integrate into and not replace your current technology stack.

The supports provided by Ease Learning as part of the Skillways deployment bundle the expertise of online pedagogy, skills mapping, competency based learning approaches and support that faculty need to bring the subject matter to life in ways that illuminate the skills learners need to be fostering to meet the growing needs of the workforce today and into the future.

If you would like to learn more about anything discussed in this paper or about Ease Learning, please visit www.easelearning.com

Acknowledgement:

We would like to thank North Orange Continuing Education (NOCE) for their support in the development of this white paper. Our partnership with NOCE is a testament to their commitment to the relentless pursuit of learner success. The faculty and staff at NOCE care deeply that they are positively impacting their students towards the end of attaining the skills they need to be job ready. Only through this kind of collaborative work can we build programs that provide the skills needed for the future of the workforce.