THE STUDENT BODY OF ONE-BY-ONE: Leveraging Personalized Learning Curricula in K-12 Schools

Content provided by McGraw Hill Education
Because learning changes everything.
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The Student Body of One-by-One: Leveraging Personalized Learning in K-12 Schools Using Innovative Practices for Planning and Development

McGraw-Hill Education, School
April, 2017
@jasontodddgreen
#BLinInAction
Build Common Language

**Differentiation**
The teacher drives instruction and adjusts learning needs for groups of students

**Individualization**
The teacher drives and accommodates learning needs for an individual learner

**Personalization**
The learner and teacher collaborate to drive learning and determine needs, plan, and learning design

(Bray and McClaskey)
Personalized learning is like **differentiation** and **individualization** in that they each provide different learning experiences in...

**Content** (what)

**Process** (how)

**Output** (evidence)
Personalized learning is different from differentiation and individualization in that it is more student centered and increases student agency.

- Planning & design conferences between Student and Teacher
- Ongoing formative assessment authentically involving student (student owns their data)
- Student learning portfolios – Real-time and ongoing reflections of learning, self-assessments and demos of learning
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Blended Learning
A formal education program in which a student learns:
- at least in part through online learning, with some element of student control over time, place, path, and/or pace;
- at least in part in a supervised brick-and-mortar location away from home;
- and the modalities along each student’s learning path within a course or subject are connected to provide an integrated learning experience.

The majority of blended-learning programs resemble one of four models: Rotation, Flex, A La Carte, and Enriched Virtual.

(Christensen Institute)
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Hallmarks of Blended Learning (PAACC)

(Tucker, Wycoff, Green – Blended Learning in Action - #BLinAction)
#plasticpollution project highlighted tonight: keloland.com/news/article/p ... #hsmstigers #globalempathy @bbray27 1st iteration of 3!
Blended Learning is a pathway to personalization.

Personalization is a hallmark of effective Blended Learning.

#BLinAction
Still a lot of debate

1. Learning is cumulative and students may not pick the best path of their learning (Dan Willingham)

2. Personalization may reduce the necessary social aspects of learning (Dan Meyer)

3. Thinking is hard and students may not choose the more challenging but necessary path (Ben Riley)
Many existing implementations don’t help
Many existing implementations don’t help
Where are the opportunities?

• Ensure systems are integrated and simplified for ease of use and optimization of learning

• Rethink curriculum and school designs to actively work toward personalization

• Make the school a true learning community
Integration and simplification of systems
Curriculum and School Designs

Linear learning & curriculum
- Leverage adaptive & self-paced supplemental curriculum
- Performance-based education (Taylor County, Kentucky, Superintendent Roger Cook)

Schedule and space
- Rethink school day schedules and spaces with learner input
- Harrisburg Middle School (Darren Ellwein, @dellwein)

Time and support for teachers
- Leverage tech coaches to provide much needed support for teachers
- Provide concrete examples of new practices (Rio Public Schools)

Assessments & progress measuring
- Redesign assessment and grading procedures
- Bring assessments into the classroom
- Catlin Tucker @Catlin_Tucker, Starr Sackstein @mssackstein
School as learning community

Rethinking the Teacher Technology Adoption Cycle

The Early Market

The Chasm

The Mainstream Market

Technology Enthusiasts

Visionaries

Chasm

Pragmatists

Conservatives

Skeptics

Because learning changes everything.
School as learning community
“We must allow teachers to become the 21\textsuperscript{st} century learners that we are asking them to help create.”

—Blended Learning in Action #BLinAction

@jasonontoddgreen
@jasontoddgreen
#BLinAction
@MahoneySM
#purposefullearning
“We must allow teachers to become the 21\textsuperscript{st} century learners that we are asking them to help create.”

—Blended Learning in Action #BLinAction

@jasonontoddgreen
“Empower great teaching.”

@MahoneySM
During this portion of our time together we are going to accomplish 3 things...

- Outline an approach to research and design in education (including for personalized learning)
- Provide exemplars of personalized learning research in practice
- Introduce principles and frameworks to anchor personalized learning plans
Vision
To unlock the full potential of each learner.

Mission
To accelerate learning through intuitive, engaging, efficient and effective experiences – grounded in research.
We believe that our contribution to unlocking our collectively brighter future lies with the application of our deep understanding of how learning happens and how the mind develops.
The science of learning serving the art of teaching
Essential Question 1

What is the nature of learning?
## Research Lifecycle

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**Applied Learning Sciences**: Opportunity & context

**Design**: Requirements in context

**Build**: Product

**Implementation**: Learning Analytics
Learning Science is the fabric of research, methods, implementations, and data that drives a continuous improvement ecosystem.

We **research and study** the science of how learning happens.

We **develop methods** to make the learning process more effective.

We **build tools** that help learners, instructors, and authors improve learning outcomes.

We **use data analytics** to constantly improve our products.
We enter each new phase of life as a novice.
Essential Question 2

What are the attributes of personalized learning?
Redbird Mathematics

Personalized Learning built on adaptive technology developed by Stanford University

- Learning pathways adjust automatically to offer remediation or acceleration
- Richly engaging content and interactivity to drive student progress
- Multiple modes of instruction to support individual student needs
- Real-time insights for teachers into student performance
Right tool, at the right time, for the right student, for the right reason.
What frameworks and principles can support and extend your personalized learning strategy?
Guiding Principles for English Learners

McGraw-Hill Education’s Guiding Principles for Supporting English Learners

McGraw-Hill Education is committed to providing English Learners appropriate support as they simultaneously learn content and language. As an organization, we recognize that the United States is a culturally and linguistically diverse country. Moreover, this diversity contributes to increased, corresponding growth in the number of English Learners (ELs). In 2012-2013, an estimated 4.65 million ELs in more than 10,000 U.S. schools; this subpopulation makes up nearly 10% of the total public school enrollment (Pallas, Qian, and Baker, 2015). In fact, ELs are the fastest growing student population in the country, growing 69% in the last decade, compared with only 7% growth of the general student population (Centers for Education, 2012). Perhaps most interesting of all, the vast majority of ELs - 80% of the 3.8 million proficient through Within grade ELs and 42% of high school ELs - were born in the United States (Ding & Barba, 2013). These U.S.-born ELs may be first, second, or third-generation students with strong ties to their cultural worlds.

A great many English Learners come to school with a variety of rich English and cultural backgrounds from Spanish-speaking countries in South and Central America; in addition, schools experience higher numbers of students from diverse ethnic backgrounds and languages. The most common native languages among ELs are Spanish, Korean, Vietnamese, and Haitian Creole. Whites are 79% of English Learners; 30% of English Learners come to school speaking Spanish as their native language, as a group, ELs speak nearly 158 languages (Gates, 2012). The responsibilities and identities acquired in the context of ELs’ homes and communities are transmitted to their classrooms in a unique cultural and linguistic environment. English Learner success in learning a second language is influenced by a variety of factors: besides the instructional method itself, including individual, family, and classroom characteristics; school and community contexts; the attitudes of the teacher; and the student’s own determination and effort (Brinton & Thompson, 2009; Garcia, Louisiana Literacy, Soderk, & Clinton, 2006). For Nolte, 59% of ELLs’ initial level of proficiency is in their native language; along with English, influence the language acquisition (Brinton, Shin, Shum, Fink, & Rosenblatt, 2012, 2013) and the identities of the language barrier; first and second language (Chomsky & Katz, 2006).

Guiding Principles

- Provide Specialized Instruction
- Cultural Meaning
- Teach Structures and Form
- Develop Language in Context
- Scaffold to Support Access
- Power Innovation
- Create Affirming Cultural Spaces
- Engage Retire to Enrich Instruction
- Promote Multilingualism

The vast majority of ELs were born in the United States.
Our Principled Approach to Learning Ecosystems

DATA ANALYTICS

FORMATIVE ASSESSMENT

DESIGNED CURRICULUM

TAUGHT CURRICULUM

PROFESSIONAL DEVELOPMENT

SCOPE & SEQUENCE

MHE CONTENT EXPERT
Instructional Design
Efficacy
Standards
Metadata

TEACHER
Open and Flexible Customization
Internally Sourced Content
3rd Party Licensed Content
Open Educational Resources

LEARNER
Personalized Learning Paths
Objective Based Interactions
Evidence Based Refinements
Targeted Learner Data Capture
Who can’t wait to help us?
Academically and educationally sound content.
Our Commitment to Academic Integrity: The Framework

(Good Work, Howard Gardner)
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Questions?