Institute for Translational Research in Education: Rethinking P–12 Education for the 21st Century

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Through the creation of the Institute for Translational Research in Education (ITRE), this grand challenge proposal will catalyze and sustain the type of large-scale innovation, translational research, and paradigm shift in P-12 education that is needed to dramatically improve education outcomes for all students in Indiana and the nation.

Abstract:

One of the grandest challenges facing the nation is successfully preparing our youth for the increasingly complex demands of a 21st century global society. Individuals, the state and the nation incur heavy social and economic costs when schools fail to develop effective citizens who can problem solve and participate in a global economy. Despite longstanding recognition of education’s importance, serious questions linger regarding P-12 education’s effectiveness; and business leaders continue to note the failure of our P-12 education system to develop an educated and skilled workforce. Rethinking P-12 education provides a compelling opportunity, given that almost every solution to national and even global concerns entails thinking through how we prepare our students to be global citizens with 21st Century workforce skills. Indiana University has the opportunity to successfully address this grand challenge through the creation of the Institute for Translational Research in Education (ITRE). ITRE’s overall goal is to create and sustain the type of large-scale innovation, translational research, and paradigm shift in P-12 education that is needed to dramatically improve education outcomes for all students. ITRE will: (1) increase the effectiveness of Indiana’s P-12 system in developing an educated and skilled workforce; and thereby increase the state’s economic, social and cultural vitality, (2) establish IU as a national and international leader in translational research in education, as well as transformative education innovation, (3) increase innovative, learner-centered education paradigms and models implemented throughout the state and nation, and (4) establish a self-sustaining Institute with a broad and diverse funding base.
1. The Grand Challenge

One of the grandest challenges facing the nation is successfully preparing our youth for the increasingly complex demands of a 21st century global society. Workforce needs continue to rapidly diverge from traditional school curricula (National Education Association, 2012), and individuals, the state and the nation incur heavy social and economic costs when schools fail to develop effective citizens who can problem solve and participate in a global economy. More locally, P-12 education is critical to Indiana’s economic, social and cultural vitality, as recognized in IU’s Bicentennial Strategic Plan. Despite longstanding recognition of education’s importance, serious questions linger regarding the career and college-readiness of Indiana’s high school graduates, and the overall effectiveness of the state’s early childhood, elementary, and secondary education systems. For example, although nearly two-thirds of all new jobs in Indiana this decade will require a postsecondary credential (Indiana College Completion Report, 2015), only 24% of Indiana’s high school graduates obtain a postsecondary degree within 150% of program time (National Center for Higher Education Management Systems, 2010). Despite numerous education reform efforts at the state and national levels, Indiana’s postsecondary attainment rates remain relatively stagnant, and business and industry leaders continue to note the failure of our P-12 education system to develop an educated and skilled workforce (Clark, 2014; Zimmer, 2014). Rethinking P-12 education provides a compelling opportunity, given that almost every solution to national and even global concerns entails thinking through how we prepare our students. Indiana University has the opportunity to successfully address this grand challenge, and impact education in Indiana (and beyond).

2. Goals

The overall goal of the Institute for Translational Research in Education (ITRE) is to create and sustain the type of large-scale innovation, transformation, and paradigm shift in P-12 education needed to dramatically improve education outcomes for all students. This idea can significantly change education in Indiana, and place IU at the forefront of state and national conversations about education. Building on the strengths of IU professional schools and academic disciplines, and bringing together resources in academia, industry, and government, the proposal focuses on the following long-term goals:

- Increase the effectiveness of Indiana’s P-12 system in developing an educated and skilled workforce, and thereby increase the state’s economic, social and cultural vitality
- Establish IU as a national and international leader in translational research in education, as well as transformative education innovation
- Increase the quantity and quality of innovative, learner-centered education paradigms and models implemented throughout the state and nation
- Establish a self-sustaining Institute with a broad and diverse philanthropic, corporate, and government funding base

The Institute will achieve these goals by 1) developing an alliance of multidisciplinary faculty experts who will lead the state in redesigning education; 2) creating an environment of innovation and collaboration within which academia, industry and government synergistically work to solve problems of state and national importance; and 3) developing pathways to translate knowledge into education practice. ITRE’s short-term, intermediate, and long-term measurable goals (including those beyond initial Grand Challenges seed funding) are noted in the following logic model.
**Logic Model with Measurable Goals & Outcomes**

**Primary Components**

**University-Level**
- Increase number of faculty engaged in translational research in education
- Increase translational research knowledge, understanding, & best practices
- Increase quantity & quality of multidisciplinary collaborations
- Increase creativity & innovation in education knowledge production
- Increase knowledge & understanding of systemic teacher education transformations needed for new paradigm

**State-Level**
- Increase quantity & quality of collaborations between academia, industry, and government
- Increase the number of schools/settings implementing new, innovative, learner-centered education models, tools & systems
- Increase quantity & quality of pathways for translational research with continuous improvement feedback systems (i.e., applying innovative models/tools in real-world settings with rapid response evaluation systems)
- Increase state-wide dialogue between academia, government, school systems, etc. regarding systemic redesign of P-12 education

**Systemic Innovation Alliance**
- Engage academia & key stakeholders (state-level education agencies, industry, P-12 practitioners, etc.) in dialogue & action related to systemic redesign of P-12 education
- Collaborative approach to state-level systemic change & teacher education transformations

**Innovation Schools**
- Early adopter schools/settings
- Bi-directional, collaborative & reciprocal university-school partnerships
- Leverage established relationships with Indiana schools, Indiana Department of Education, & charter school organizations
- Implement Reigeluth (2013) model in 4-6 Innovation Schools

**Education Innovation (EI) Incubator**
- Translational research
- Multidisciplinary faculty teams
- Collaborative inquiry with private industry, government, P-12 practitioners, etc.
- Directed development of targeted projects, including integrated, comprehensive technology tool needed for learner-centered paradigm

**Short-Term Outcomes**

**University-Level**
- Increase effectiveness of Indiana’s P-12 system to develop an educated and skilled workforce (e.g., increase college & career readiness of high school graduates; increase percentage of residents completing postsecondary credentials); and thereby increase Indiana’s economic, social & cultural vitality
- Establish IU as national & international leader in translational research in education & transformative education innovation
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**Intermediate Outcomes**

**University-Level**
- Decrease gap between academia (research) & P-12 schools (practice)
- Increase IU’s state & national reputation as vanguard of translational research in education
- Increase IU’s state & national reputation as being on the forefront of education innovation & transformation
- Create integrated, comprehensive technology tool needed for learner-centered paradigm; explore possibilities for commercialization
- Develop academic training programs (possible degree program, minor, or certificate) in translational research in education
- Increase Institute’s long-term sustainability by leveraging interests (and funding) of diverse groups (federal, corporate, foundational)

**State-Level**
- Accelerate Indiana’s educational transformation to a learner-center paradigm
- Increase statewide knowledge, understanding, & capacity for systemic education innovation
- Increase number & quality of state policies & programs that support systems-wide shifts to learner-centered P-12 education

**National-Level**
- Establish IU as national model for translation research centers/education institutes
- Increase researchers’, policymakers’, and practitioners’ knowledge & understanding of the critical role of translational education research
- Increase quantity & quality of innovative, learner-centered education models implemented throughout the nation
- Increase dissemination of transformative research & best-practices in education innovation & translational research in education

**Long-Term Outcomes**

**Primary Components**

**University-Level**
- Increase knowledge & creativity
- Increase quantity & quality of systemic education innovation & practice
- Increase number of faculty in translation research in education
- Decrease gap between academia & P-12 schools
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3. Proposed Research and Its Impact

ITRE will provide the necessary infrastructure, resources, and support to catalyze translational research that accelerates innovation and transformation of P-12 education in Indiana and the nation. With its genesis in the medical sciences, translational research focuses on the movement (translation) of scientific discoveries to the development and implementation of new ways to prevent and treat disease. In the field of medicine, translational research has a strong foundation and record of success. For example, more than 50 centers of translational research are supported by the National Institutes of Health; translational research has improved patient-care practices and outcomes and has changed the science of healthcare delivery and healthcare education (McGaghie et. al., 2012). In contrast, translational research is still relatively unknown within the field of education; there are no known organizations within Indiana focusing on translational research specifically in education. The Institute will place IU at the forefront of the emerging discipline of translational research in education while decreasing the gap between research and practice.

The Institute’s translational research approach will transform Indiana and U.S. P-12 systems to the learner-centered paradigm needed to successfully meet the 21st century’s new educational needs. America’s education system was built for an economy and a society that no longer exist, requiring a paradigm shift to significantly improve the status quo. Continuing current reform efforts may give incremental improvements, but will not provide the necessary transformation of P-12 education.

Therefore, this proposal focuses on transforming educational systems from the current Industrial Age paradigm to an Information Age paradigm. Reform efforts to date have focused on a plethora of piecemeal changes within the current “factory model” of schooling (teacher-centered, standardized, time-based student progress, bureaucratic accountability, monolithic) developed to meet the sorting and standardization needs of the Industrial Age. However, the current Information Age is far more complex than the Industrial Age, with many key characteristics of the Information Age being polar opposites to those of the Industrial Age (see Table 1). For example, understanding dynamic interrelationships within various systems is critical in the Information Age, yet the current educational system decontextualizes and compartmentalizes the real world into discrete subject areas without addressing their powerful interrelationships. The fundamental structure of the U.S. education system has become counterproductive and cannot meet the needs of citizens of the 21st century, just as the one-room schoolhouse (the Agrarian Age paradigm) was not capable of meeting the needs of citizens of the Industrial Age.

Therefore, this proposal focuses on paradigm change. The Information-Age paradigm, founded on competency-based student progress rather than time-based progress, requires it to be customized, learning-focused, and with criterion-referenced student assessment. The core ideas of the new paradigm

Table 1. Comparison of Key Characteristics of Two Ages

<table>
<thead>
<tr>
<th>Industrial Age</th>
<th>Information Age</th>
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<tbody>
<tr>
<td>Standardization</td>
<td>Customization</td>
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<tr>
<td>Uniformity</td>
<td>Diversity</td>
</tr>
<tr>
<td>Adversarial</td>
<td>Collaborative</td>
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<tr>
<td>relationships</td>
<td>relationships</td>
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<tr>
<td>Bureaucratic</td>
<td>Team</td>
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<tr>
<td>organization</td>
<td>organization</td>
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<tr>
<td>Autocratic leadership</td>
<td>Shared leadership</td>
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<tr>
<td>Centralized control</td>
<td>Empowerment/Accountability</td>
</tr>
<tr>
<td>Compliance</td>
<td>Initiative &amp; self-direction</td>
</tr>
<tr>
<td>Professional service</td>
<td>Self-service</td>
</tr>
<tr>
<td>Compartmentalization</td>
<td>Holism</td>
</tr>
<tr>
<td>(Division of Labor)</td>
<td>(Integration of Tasks)</td>
</tr>
</tbody>
</table>
(Reigeluth & Karnopp, 2013) include an expanded curriculum addressing 21st century skills; new roles for teachers, students, parents and technology; and organizational changes in structures, choice, incentive, and decision-making systems.

Project Components

The Institute consists of three primary components that are interdependent and operate synergistically: (1) Education Innovation (EI) Incubator, (2) Innovation Schools, and (3) Systemic Innovation Alliance.

Education Innovation (EI) Incubator. This component of ITRE brings together multidisciplinary faculty, private industry, government, and P-12 practitioners to develop, demonstrate and disseminate innovations through a collaborative approach. Two integral components will stimulate the development of innovative models, tools, and systems. First, ITRE will develop a coordinated alliance of multidisciplinary faculty experts to harness untapped knowledge and basic discoveries from other academic areas of strength at IU (e.g., psychology and brain sciences, business, informatics). For example, currently P-12 schools have not benefitted from basic research on learning being conducted by neuroscientists and cognitive- and learning-science faculty. The EI Incubator bridges the gap between other disciplines and education faculty, and provides a focal point for multidisciplinary collaboration. Second, ITRE will create an environment where academia, industry, government, and P-12 practitioners synergistically solve problems of state and national importance. The EI Incubator will create a space for collaborative inquiry that values the expertise of multiple stakeholders, including P-12 practitioners, and engages these diverse stakeholders in the generation of transformative ideas, knowledge, and inquiry.

The EI Incubator will include directed development of targeted projects that accelerate breakthroughs in learner-centered P-12 education. These targeted projects will address: 1) areas of critical need (i.e., academia, industry, government, and P-12 practitioners collaboratively identify key problems/issues, and ITRE coordinates the multidisciplinary team needed to best address the problem/issue) and 2) areas of critical opportunity (i.e., cutting-edge basic research and discoveries in non-education disciplines at IU are identified based on their potential to impact education practice through translational research). Grand Challenge seed money will be used to catalyze research for an initial set of 4-6 projects; subsequent projects will be externally funded.
One initial project is the creation of a seamless and comprehensive technology tool to address the record-keeping, planning, instruction, and assessment needs of the Information Age. Such a tool does not currently exist, but would greatly enhance the successful adoption of a learner-centered paradigm. The project (Personalized Integrated Educational System or PIES) would bring leading experts in Informatics and Library and Information Science together with education faculty, P-12 practitioners, state department of education stakeholders, and others. Once developed, this intellectual property could generate revenue through commercialization.

**Innovation Schools.** Focusing on implementing innovative education models, tools, and systems, including those developed via the EI Incubator, the Institute will establish collaborative partnerships with schools and districts to serve as early adopters. By leveraging established relationships with Indiana schools and districts, the Indiana Department of Education (IDOE), and state charter school organizations/authorizers, ITRE will be able to quickly establish Innovation Schools, accelerating the transformation of new knowledge and discoveries into practice. Inherent in this new school model is reciprocity between university faculty and P-12 practitioners. In contrast to traditional university-school partnerships, the Innovation Schools’ shared ownership model recognizes the expertise of P-12 practitioners, and engages multiple stakeholders. Innovation Schools will also leverage IU’s Center for Evaluation and Education Policy’s (CEEP) extensive evaluation expertise to design a model of continuous improvement.

The Institute will promptly identify 4-6 innovation schools to implement Reigeluth and Karnopp’s (2013) learner-centered transformation model. In future years, as other learner-centered models or innovations are developed through ITRE’s EI Incubator, the scope of both learner-centered innovations and participating schools will be expanded.

**Systemic Innovation Alliance.** The complexity of changing education’s foundational paradigm, and bringing these changes to scale, requires building system capacity. Therefore, the Alliance will focus on a broader, holistic, and systemic approach including both state-level transformations (systemic redesign of roles, function and organization of state department of education, school districts, etc.) and teacher education transformations (systemic redesign of teacher preparation and educator training). The Alliance will engage academia and key stakeholders (state-level education agencies, P-12 practitioners, industry, government, postsecondary institutions) in dialogue and action related to the systemic redesign of P-12 education and will work with key stakeholders to move beyond piecemeal reform efforts in order to reimagine our public education system.

**How is Institute for Translational Research in Education different?**

Despite decades of federal and state P-12 reform legislation, and a multitude of government and private sector initiatives to improve student learning and stimulate education innovation, there has been limited improvement on most education outcomes. Therefore, the Institute adopts an approach to transforming P-12 education that is profoundly different than the multitude of previous and current education reform efforts. As described on the following page, the Institute’s approach changes who is involved in the transformation efforts, what is being changed in the P-12 education system, and how the transformation process will be implemented.
### Past/Current Efforts at Education Reform & Education Innovation

| Who? | Single or monolithic stakeholder groups involved in education reform efforts (state departments of education, charter school organizations, philanthropic organizations) | Multiple stakeholders (P-12 teachers & practitioners, private industry, government) integrally & collaboratively involved as partners with higher education |
| Higher education at periphery (at best) of education reform efforts | Higher education integrally involved in leadership of education innovation & transformation |
| What? | Piecemeal, fragmented interventions/initiatives targeting specific content areas or problems (e.g., reading interventions, STEM initiatives) or specific components of education system (e.g., teacher professional development, teacher evaluation systems) | Holistic approach recognizing the need for a paradigm shift & systemic changes in organizational structures, decision-making systems, roles for teachers, models of student progress, technological tools, etc. |
| Industrial Age paradigm (teacher-centered, standardized, time-based student progress, bureaucratic accountability, monolithic) | Information Age paradigm (learner-centered, personalized, competency-based student progress, user-based accountability, distributed) |
| How? | Incremental change | Disruptive innovation (Christensen, 2003) |
| Traditional research for knowledge production | Translational research to translate new knowledge to practice & directly impact education outcomes |
| Single discipline research, primarily by education faculty | Multidisciplinary research harnessing research strengths of other disciplines (e.g., informatics, psychological & brain sciences, business) |
| Unidirectional relationships between universities & schools, with faculty positioned as experts implementing school interventions | Bi-directional interface between universities & schools, recognizing expertise of P-12 practitioners; collaborative & reciprocal partnership |
| Top-down approach to change | Multi-level, comprehensive approach |

### 4. Resources

ITRE will leverage nationally ranked IU areas of excellence not traditionally engaged with translational research in education, including: a) Psychological and Brain Sciences, b) School of Informatics and Computing, c) Kelley School of Business, d) School of Public and Environmental Affairs, and e) School of Education. In addition to the proposed team members, the Institute’s flexible organizational structure (e.g., EI Incubator’s multidisciplinary groups/teams) will allow it to engage additional multidisciplinary faculty over time to address emerging education challenges and needs. For example, targeted projects focused on innovation in P-12 science, technology, engineering and mathematics (STEM) will identify specific faculty in the sciences to engage with the EI Incubator; and targeted projects related to better preparing global citizens will identify relevant faculty expertise from IU’s renowned School of Global and International Studies and leverage CEEP’s existing relationships with IU’s Title VI Centers.

The Institute also leverages the established infrastructure of its key team members. CEEP, the Indiana Business Research Center (IBRC), and the Center for Urban and Multicultural Education (CUME) all have well-developed research and external funding infrastructures and resources that will provide a
sustainable foundation for the Institute. In addition, CEEP, IBRC and CUME all have established relationships with external stakeholders (e.g., P-12 school districts, state departments of education, private industry) critical to the Institute’s success.

**Additional Resources Requested**

Indiana University is positioned to be the vanguard of translational research in education with the potential to significantly and substantively impact P-12 education in Indiana and beyond. However, additional resources are needed during the Institute’s early implementation stages to achieve these goals. These start-up resources include funds for the following: a) strategic cluster hires to increase IU’s capacity for translational research in education, b) post-docs, research scientists, and graduate students to quickly translate new knowledge and discoveries to P-12 education and recruit Innovation Schools, etc., c) directed development (seed) funding for 4-6 EI Incubator projects including the PIES technology tool, and d) marketing and communication funds to establish partnerships, recruit Innovation Schools, and increase the awareness and understanding of diverse stakeholders (e.g., government, industry, P-12 practitioners) on key issues (e.g., translational research, learner-centered paradigm, systemic innovation).

5. **Team**

**Point of Contact/Principal Investigator**

John Hitchcock (CEEP Director and Associate Professor, School of Education) brings extensive experience working with P-12 education stakeholders at multiple levels, including his work as Director of Research for the Regional Education Lab-Appalachi. He is a nationally and internationally recognized expert in mixed methods research and evidence-based research. Dr. Hitchcock directs a large, fully self-funded Center with more than $11 million in annual research expenditures.

**Team Leaders**

The proposed team collectively meets the following criteria: diverse, multidisciplinary perspectives; strong prior external funding experience; established self-funded Centers with needed infrastructure and resources; and representative of multiple campuses/institutions (i.e., IUB, IUPUI, and Purdue). Team leaders will serve as a fulcrum for engaging additional faculty in their respective disciplines or fields. (See appendix for biographical sketches of team leaders and team members.)

- **Charles Reigeluth (Professor Emeritus, School of Education)**, is one the world’s premier experts on transformational paradigm change, and has worked directly with schools to engage in reinvention for 12+ years
- **Jack Bates (Professor, Psychological & Brain Sciences)** conducts research on development from infancy to adulthood, founded the Child Development Project, and has successful funding from NIDA, NIMH and NICHD
- **Jerry Conover (Director of the IBRC, Kelley School of Business)** has planned and directed economic and workforce development research for 25+ years and has secured more than 90 grants and contracts worth nearly $20 million
- **Sean Nicholson-Crotty (Associate Professor, School of Public and Environmental Affairs)** is an expert on public program design, citizen outcomes in education, and diffusion of public policy innovations among state and local governments
• Samantha Scribner (CUME Director and Associate Professor, School of Education, IUPUI) is an expert on organizational and political dynamics in urban K-12 schools-communities; she has conducted evaluations on various Indianapolis high school reform projects; and she directs CUME, a partner-focused organization employing a translational approach to address urban education issues.

• Martin Siegel (Professor of Informatics, Cognitive Science and Education, School of Informatics and Computing) is a pioneer in online learning whose research focuses on the design of digital learning environments and design pedagogy; he is an expert on developing “next generation” learning tools; and he founded a company (Glerb), a knowledge exchange and learning system.

• Patricia Muller (CEEP Director of Research and Evaluation, School of Education) has served as the principal investigator/project director for over $12 million in funded research; she is nationally recognized for her application of social science research to critical research and evaluation studies; and she has worked closely with state departments of education, the U.S. Department of Education’s Office of Innovation and Improvement, and hundreds of schools and districts.

• Bill Watson (Associate Professor, Purdue University College of Education), conducts translational research in education, focusing on transforming research into products and platforms making a real impact; is a nationally known authority on learner-centered pedagogies, including using technology to transform education; and has secured approximately $1.4 million in external funding.

Other team members include: Ashlyn Nelson, Associate Professor, School of Public and Environmental Affairs; Russell Skiba, Director, Equity Project and Professor, School of Education; and John Wisneski, Director, MBA Consulting Academy & MBA for Educators and Clinical Assistant Professor.

6. Sustainability
The Institute’s sustainability is strengthened by the proven infrastructure, resources, and past experiences of the team’s three well-established and self-funded Centers. The proven infrastructure of CEEP, IBRC and CUME will provide the needed foundation for proposal development and management, as well as the continuous improvement process (i.e., strong formative and summative evaluation) inherent to sustainable organizations. In addition, the Institute’s design structure (e.g., the EI Incubator’s organic and dynamic multidisciplinary teams and targeted development projects) will allow ITRE to readily evolve in response to changes in internal environment (e.g., change in faculty, development of new degree programs) and external environment (e.g., changing needs of P-12 stakeholders, shifting priorities of external funding sources).

The Institute is positioned to secure substantial external funding after the Grand Challenge start-up funds. The goals of ITRE align well with funding priorities of diverse public and private sector programs focused on school turn-around, education innovation, school choice, and evidence-based practices; the flexible structure of ITRE can readily adapt to shifts in funding priorities over time. The Institute will employ the following strategies:

External grants. There are a multitude of funding streams aligned with the Institutes’ goals and purposes. For example, the U.S. Department of Education programs include Investing in Innovation, Partnerships and Collaborations Focused on Problems of Practice, and Policy and...
Improving Education Systems. National Science Foundation programs include Discovery Research PreK-12, Interdisciplinary Behavioral and Social Science Research, Partnerships for Innovation: Building Innovation Capacity, and the Industry/University Cooperative Research Centers Program. Private sector funding streams include foundation and philanthropic grant programs focused on school improvement, education innovation, or systemic reform. For example, just this month a new $2 million grant program (Assessment for Learning Project) supported by the Hewlett and Gates foundations was announced to stimulate educators to fundamentally rethink the roles that assessment should play to advance student learning and improve the P-12 education system.

Many other grant opportunities can also be used to fund specific Institute projects. For example, federal and private sector grants could be used to fund projects focused specifically on innovations or transformations in science, technology, engineering, and mathematics education (NSF’s Innovative Technology Experiences for Students and Teachers); increasing students’ non-cognitive 21st century skills (US ED’s new Skills for Success); reform of school leadership (US ED’s School Leadership Program); school redesign (Mind Trust’s School Design Competition); or developing a critical mass of faculty and graduate students with translational researcher skills (US ED’s Research Training Programs in the Education Sciences).

Partnerships with Foundations and Private Industry. Numerous foundations have funding strategies aligned with the Institute’s goals. For example, the Bill and Melinda Gates Foundation’s five-year strategic plan (2014-2018) maintains a commitment to innovation, learner-centered P-12 education, and catalyzing P-12 education transformation. Other foundations with closely aligned funding strategies include: Annie E. Casey Foundation; William and Flora Hewlett Foundation; Bloomberg Philanthropies; and Edna McConnell Clark Foundation. There are also many Indiana businesses (e.g., Eli Lilly & Company, Cummins, Dow AgroSciences, Rolls-Royce, Cook Medical) that would likely be interested in the Institute’s goals given prior investments in education initiatives and a vested interest in an educated and prepared 21st century workforce. IBRC’s relationships with Indiana businesses will provide an entry point for establishing partnerships with employers across the state, and soliciting financial support for ITRE and its initiatives.

Other sources of revenue. Alternative sources include the development and commercialization of intellectual property, particularly technological tools and innovations. For example, the development of the PIES technology tool represents valuable intellectual property and a potential revenue source if commercialized. Additionally, the Institute has the potential to develop translational research in education as its own interdisciplinary field, with associated coursework and graduate programs that can generate funding to help sustain new faculty hires.

7. Partners

CEEP, IBRC and CUME have established relationships with critical stakeholder groups. CEEP and CUME have strong histories of collaboration with Indiana Department of Education (IDOE) and have successfully worked with hundreds of schools and school districts throughout Indiana (and the nation). CEEP’s preliminary conversations with IDOE have solicited support for the Institute’s overall goals and purpose. IDOE and key P-12 stakeholders throughout the state (e.g., superintendents, principals, teachers,
parents) will be integrally involved in partnerships with the Institute, including: collaboratively
identifying critical issues; engaging in the development of innovations; participating as Innovation
Schools; and participating in the Systemic Innovation Alliance. CEEP also has worked with various
charter school organizations and authorizers throughout the state and nation including collaboration with
Robert Marra, Executive Director of the Office of Charter Schools, Ball State University, and the
Indianapolis Mayor’s Office of Education Innovation. Given that Innovation Schools will utilize the
charter system during the early implementation stages, these established relationships with public charter
school organizations are crucial. In addition, ICBR will leverage its partnerships and collaborative
relationships with diverse business organizations throughout Indiana, including government, higher
education, non-profit organizations, and professional associations.

In addition to collaborations within Indiana, partnerships with diverse national organizations will provide
both formal (e.g., Advisory Board) and informal guidance. For example, CEEP will leverage prior
working relationships with the Center for Reinventing Public Education, the National Association of
Charter School Authorizers (NACSA), the Education Commission of the States, and US ED’s Office of
Innovation and Improvement and Institute of Education Sciences.

8. Metrics

CEEP has a strong national and international reputation for conducting valid and meaningful evaluations,
and has worked with thousands of international, national, state and local organizations and grantees to
develop metrics. CEEP’s extensive prior experience measuring impact will guide the development of
performance metrics. These metrics will be drawn directly from the logic model (see page 4) that notes
the intended short-term, intermediate, and long-term impacts in measurable terms. For example, short-
term outcomes that can be measured during the initial of years of the Institute include: the number of
faculty engaged in translation research in education; the quantity and quality of collaborations between
academia, industry, and government; and the number of schools where new, innovative learner-centered
models or tools are being implemented. Intermediate outcomes include: external funding sources secured;
and statewide knowledge, understanding and capacity for systemic change in education. Long-term
metrics include: stature nationally and internationally in translational research and education innovation;
number of Indiana high school graduates meeting college and career-readiness standards; and percentage
of Indiana’s residents who complete a postsecondary credential. CEEP will work with key ITRE
stakeholders to develop a detailed evaluation plan that accounts for data collection methods, baseline
measures, and benchmarks for measuring success.
References


