World Savvy:
Connecting Global Competency with Academic Achievement

MDP & MPP Capstone Project

In Partial Fulfillment of the Master of Development Practice
or Master of Public Policy Degree Requirements
Humphrey School of Public Affairs
University of Minnesota

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Presented May 2, 2013

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EXECUTIVE SUMMARY

This report highlights key existing links between elements of global competency and academic achievement. In addition, connections are made between achievement and educational pedagogies employed by World Savvy, namely project-based learning and arts integration. This report was produced as a capstone project by a group of graduate students at the Humphrey School of Public Affairs. It was designed for World Savvy to be used as a resource to bolster marketing and fundraising efforts by presenting studies that are relevant to their overall mission and objectives. As the primary goal was utility for World Savvy, global competency was limited to World Savvy's definition.

Findings show that individual components of global competence improve academic achievement. Specifically, studies outlined in this report indicate that empathy, perspective taking, problem solving, reading about current events, and participating in community service are all associated with improved academic achievement. Studies about project-based learning and arts integration pedagogies conclude that these strategies and disciplines can be effective in improving student performance in school. Students exposed to project-based learning instruction consistently perform better than students exclusively taught through traditional instruction. Similarly, students with high arts involvement have better grades, higher college enrollment rates and more civic engagement than those with low arts involvement.

Gaps in the existing research connecting global competency and academic achievement became evident during the project. While individual components of global competence can be linked to academic achievement, there is a lack of research that addresses the combined elements of World Savvy's definition of global competency as a whole and its impact on K-12 academic achievement. It is yet to be determined whether research on this topic is still emerging, or the connection has too many variables to make a strong case for the relationship.

From insight gained during the project, three recommendations are outlined for World Savvy to expand their current evaluation tools and strategies to collect evidence of the organization's work in improving academic achievement.

1. World Savvy should supplement their existing evaluation tools with additional questions to more directly establish their programs' influence on student learning and engagement.
2. World Savvy should assess the long-term impact of their programs by conducting periodic follow-up interviews and assessments with former participants to determine outcomes such as high school graduation rates, college enrollment, and civic engagement.
3. World Savvy should evaluate the cultural capacity of teachers involved with the organization. Student learning, especially through project-based learning, is dependent upon the cultural competence of the teacher. Measuring this competence, and how it changes based on involvement with World Savvy, could be done with a tool such as the Intercultural Development Inventory (IDI) to give external validity to World Savvy's programs.

PROJECT OVERVIEW

To gain insight on existing research linking their definition of global competency and academic achievement, World Savvy commissioned the capstone project of three graduate students in the Master of Development Practice and Master of Public Policy degree programs at the University of Minnesota's Humphrey School of Public Affairs. In addition to the elements of global competency as portrayed in the World Savvy matrix, the group also examined educational pedagogies World Savvy utilizes in their programs, specifically project-based learning and arts integration. Research that connects these pedagogies with higher academic achievement highlights the effectiveness of using these strategies in the classroom, or in World Savvy's case, the World Savvy Challenge and the Media & Arts Program.

This document serves as an overview resource of existing research on the above topics. An analysis of findings highlights key research and topics relevant to World Savvy, including identified gaps in the existing research. Current research fails to make a clear, concise connection between global competence and achievement; however, specific elements of World Savvy's global competency matrix do connect with academic achievement. Recommendations and strategies are included for additional data World Savvy should collect to capitalize on the research available that helps make the connection between World Savvy programs and academic achievement more explicit.

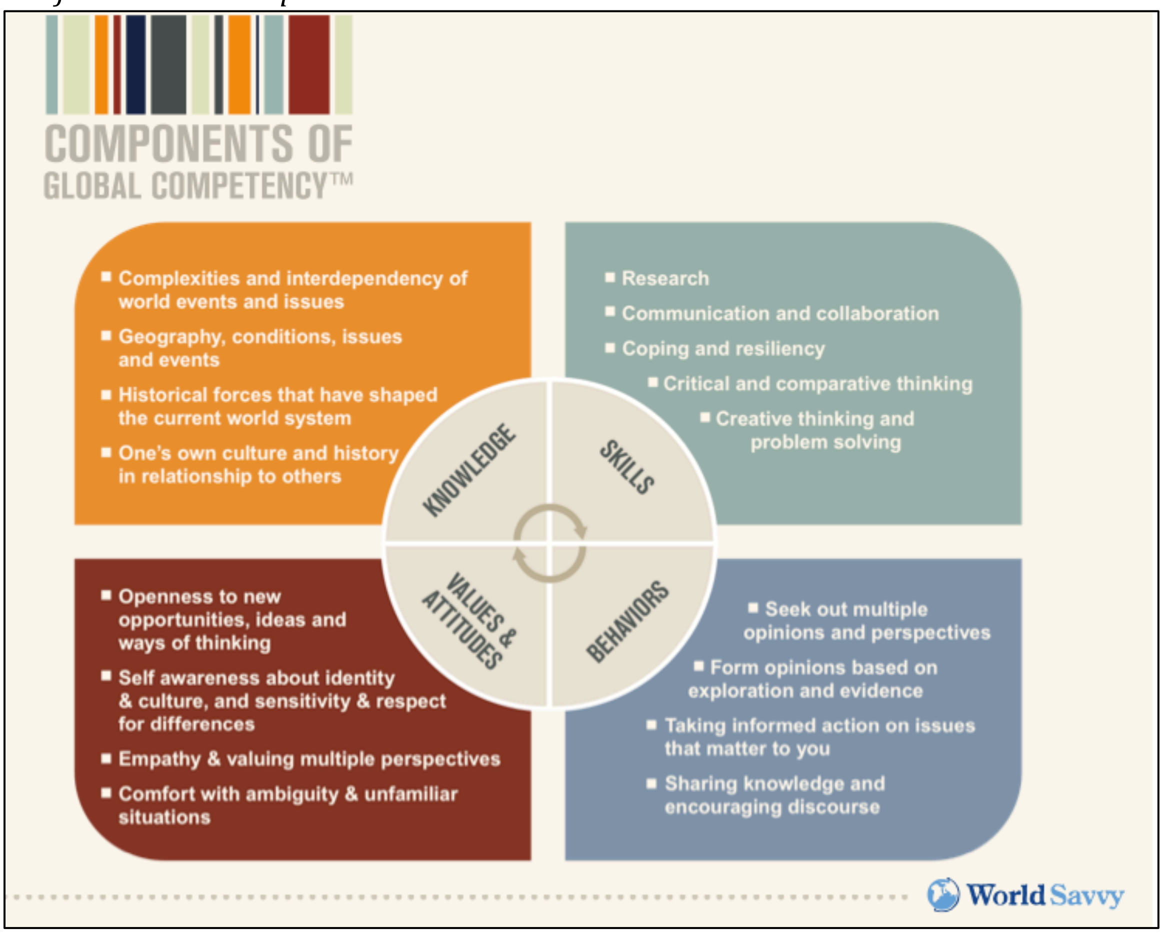
The annotated bibliography included in this report is divided into three sections: global competency, project-based learning, and arts integration. Entries highlight the most relevant findings from the group's research and are intended to serve as a tool for World Savvy in connecting their mission and programs with overall research that proves the effectiveness of these concepts and methods in improving student achievement. The most directly applicable studies have expanded entries, denoted by the World Savvy logo, with suggested marketing and fundraising language for World Savvy to incorporate the findings into their communication strategies.

DEFINITIONS

Arts Integration: The arts integration pedagogy acknowledges the importance of art as a classroom subject, while also referring to the approach of teaching that incorporates the arts into any classroom as an effective means for greater learning. Integrating arts into curriculum comes in the form of drama, visual, performing, media, and other arts that are used to demonstrate understanding of another subject. Arts integration often refers to a school environment where specific projects or concepts are taught through artistic expression.

Global Competency: World Savvy defines global competency through a matrix identifying specific elements of knowledge, skills, behaviors and values & attitudes. For the purpose of the research presented in this project, global competence was restricted to characteristics specifically outlined in the model below.

The four areas are expanded on in their chart below:



Project-Based Learning: Although specific definitions of project-based learning (PBL) vary based on context, we define PBL as a dynamic approach to instruction in which: a) students explore real-world problems, questions or challenges, b) students' ideas, questions, predictions and interests become the experiences lived and the activities undertaken in the project, and c) students practice and develop 21st century skills such as collaboration, problem solving, research skills and critical thinking. In addition, for a project to be considered PBL it needs to be central to the curriculum and focused on issues related to the concepts and principles of the discipline taught.

Skills for the 21st Century: Many other organizations working toward similar aspirations as World Savvy use the nomenclature of 21st century skills rather than global competency. Skills for the 21st century focus on the knowledge and skills needed to function in our globalized world. These skills include the components of global competency as outlined by World Savvy yet the definition of 21st century skills has a wider breadth than global competency and often includes second language abilities and a focus on innovation.

METHODOLOGY

The overall goal of the capstone project was twofold. First, to identify key researchers and their relevant work that connects elements of World Savvy's mission and learning strategies with improved academic achievement. Second, to effectively utilize these findings to bolster World Savvy's future communication strategies in order to strengthen the case that World Savvy's work positively impacts participants' academic achievement.

To begin the research process, the group connected and met with University of Minnesota researchers and educators on topics pertaining to the project. Using a snowball sampling technique,[1] the group interviewed academic professionals in the field to further understand the scope of research being done and attitudes toward the various topics. The group also interviewed with education-based organizations with missions similar to World Savvy's to gain knowledge of their current work and ways in which they are presenting their value.

Throughout the process, the group sifted through academic databases available through the University of Minnesota's library system, such as JSTOR and ERIC, to evaluate academic literature on the topics. The mixed methodology of the research allowed for adequate triangulation, strengthened the data collection process, and informed more comprehensive recommendations. Key informants were consulted to strengthen and inform recommendations.

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[1] Snowball sampling is a non-probability sampling technique where interviewers recruit future subjects based on recommendations from previous interviews.

OVERVIEW OF FINDINGS

Academic achievement is a complicated topic, with many variables working together to affect a student's success in the classroom. Thus, crediting improved academic achievement to any one variable is difficult. As a result of the complex relationships that go into achievement, most studies connecting specific skills and academic achievement are correlational rather than causational. It is difficult to determine that one skill or behavior directly leads to improved academic performance, whereas a positive relationship between a globally competent individual and his or her overall achievement is easier to assert and more common. Studies researching the impacts of educational pedagogies reach more definite conclusions, as the variable being measured is easier to control, with a teacher either utilizing the pedagogy or not. Due to these realities, anecdotal evidence largely drives the conversation on the importance of well-rounded students, especially in the movement to bring 21st century skills into classrooms across the United States. However, shifting the conversation to include relevant pedagogies and individual components of global competency can strengthen World Savvy's argument for their positive impact on academic achievement. Statistics and stories together can pave the way for donors, teachers, government officials, parents and other stakeholders to bring rich curriculum and instruction to students.

A recurring theme across research in this field is students' attitudes toward learning. Especially pertaining to educational pedagogies, researchers present evidence for teaching methods that engage students in nontraditional learning styles to encourage deeper understanding of concepts. Improving a student's ability to learn helps improve future achievement as grasping new ideas inspires confidence in future learning. James Catterall, lead researcher in arts integration, asserts that students who participate in the arts are more engaged in the classroom and have higher academic performance than students who are not involved in arts. Similarly, research surrounding project-based learning makes the argument that students engaged in project-based learning are more engaged and excited about learning. Overall, these students show higher achievement than those in traditional classrooms.

Global Competency

Research on the academic impacts of global competency is only beginning to emerge. Much of the information that exists to make the case for global competence or 21st century skills focuses on behaviors and skills beneficial to students for functioning in the globalized world. However, academic research linking these characteristics to achievement is currently scarce. 21st century skills and global competency are more readily linked to job readiness or civic duty outcomes, and current research emphasizes these connections.

Although research linking global competency as a whole to academic outcomes is limited, looking at components of global competence individually allows for stronger results. Concentrating on individual elements of the World Savvy matrix led to studies that prove the case for global competency in each of the matrix's major areas: knowledge, skills, behaviors, and values and attitudes. Taken together, these studies show that World Savvy's programs encourage global competence and academic achievement through knowledge of current events, critical thinking, problem solving skills, empathy, and community service.

The studies link elements of global competence to academic achievement in a correlational way. Baker's (2003) research into the impact of problem solving skills on the transition into college and subsequent academic performance found that students who assessed their own problem-solving abilities as strong performed better in school than their peers who doubted their problem-solving skills. These students had higher GPAs and adapted to college life easier than students who assessed their problem-solving skills as poor (Baker, 2003). Durlak et al. (2011) consider empathy and perspective taking as part of Social and Emotional Learning; their meta-analysis of a large number of studies found that overall, students that are empathetic have higher grades than those who struggle to take another student's point of view. Durlak et al. (2011) conclude that students who participated in programs to improve empathy and perspective taking, among other social and emotional skills, performed up to eleven percentile points better academically than their peers who lacked those skills. In his book *The Newspaper*, DeRoche (1991) makes the case for including the newspaper and current events in the classroom. Students that participated in Newspapers in Education learning strategies had higher vocabulary and reading skills than other students who did not participate. Scales et al. (2006) link service learning and volunteering with academic achievement, finding that students that volunteered in their communities had higher grades, better attendance, and were more engaged in school than their peers who did not volunteer. Service learning is identified as a strategy that contributes to reducing the achievement gap, as the programs in the study were particularly effective among students with low socioeconomic status (Scales et al, 2006). World Savvy's current evaluations demonstrate a link between World Savvy programs and each of these components of global competence; these studies can provide the next step in linking those programs to improved academic achievement.

Project-Based Learning

Research has found that project-based learning (PBL) can be more effective than traditional teaching methods in increasing academic achievement and promoting equity (Boaler, 2002). Projects are the primary source of instruction for PBL, but there are no unified criteria for what constitutes a PBL project. Projects vary from the questions explored, the clarity of the learning objectives, the content and structure of the activity, and guidance from the teacher. Moreover, the role of projects in the overall curriculum is also open to interpretation. Projects can guide the entire curriculum or simply comprise a few spotted hands-on activities; they might be multidisciplinary or single-subject, and some are whole class, others small group, and some individual (ASCD, 2008).

Since not all PBL is the same, it is important that the conditions that supported such achievements are clearly understood and the ways in which the approaches differ from others is examined (Boaler, 2002). Thomas (2000) created a five point criteria for what constitutes a PBL program and the research review covered the types of instruction that met the criteria: project-based learning, problem-based learning, expeditionary learning and project-based instruction. He found that schools that implemented expeditionary learning were the most successful in demonstrating significant improvements in students' academic achievement. Akinoglu et al. (2007) found that using problem-based active learning in science education resulted in higher test scores and improved attitudes towards learning. The basis of the problem-based learning is comprised of "problem, solution, practice, research, questioning, realism, originality and integration." This study used quantitative (pre- and post-test scores) and qualitative research to compare the treatment and control groups. Results showed the group using problem-based learning was more successful than the control group that used traditional teaching methods. Filippatou et al. (2010) found that using PBL for students with learning difficulties can improve academic performance, motivation, and group work. Further, PBL's approach effectively accommodates their educational needs because students expand their knowledge through hands-on, field based activities and experiential learning.

Jo Boaler (2002) compares mathematics achievement in two similar British secondary schools, where one incorporated project-based learning while the other used only traditional instruction. After three years students in the school with PBL significantly outperformed the students with only traditional instruction in mathematics skills as well as conceptual and applied knowledge. In fact, three times as many students passed the national exam in the school that used PBL than the school utilizing only traditional instruction techniques. Geier et al. (2007) studied two cohorts that receive highly specified project-based inquiry science curriculum and compared its results to the remainder of the district population. Both the initial and scaled up cohorts in PBL classrooms showed increases in science content understanding and process skills over their peers, and received significantly higher pass rates on the statewide test.

Both Boaler and Geier et al. conclude that the teacher's competency is crucial to the success of reform-oriented programs in urban schools to achieve equity and narrow the achievement gap. Boaler asserts that inequity in the classroom can be overcome only when well-designed and open-ended projects are implemented by teachers who are dedicated to equity. Geier et al. demonstrates that PBL can lead to standardized achievement test gains in historically underserved urban students, when the curriculum is highly specified, developed, and aligned with professional development and administrative support.

Arts Integration

Arts integration is consistently present in the charge to enhance K-12 education by incorporating skills for the 21st century. Learning through the arts is highlighted as both an important core subject and as a method of learning to be integrated into other core classes, such as through visual and performing mediums that can enhance course content and understanding. Creativity and innovation are at the forefront of skills needed for the increasingly global workforce, two characteristics directly enhanced through involvement in the arts. The Arts Education Partnership, led by Sandra Ruppert, is a leader in the organization's supported arts integration into the classroom, especially through policy-based and state-sponsored initiatives. Individual states have made strides making skills for the 21st century a priority and arts integration is a paramount element of this charge (2006).

James Catterall is an oft-cited leader in the arts integration field with his longitudinal study connecting high-arts involvement in visual and performing arts with higher academic achievement and pro-social behaviors (2009). His work makes concrete connections between classroom performance and high arts involvement. Students that were more highly involved in arts during their younger years were more likely to be enrolled in four-year colleges, more likely to be doing well in those academic programs, and more engaged in society through volunteerism, political activism, and church involvement (2009). Another strong case for arts integration can be made for its positive contribution engaging students of lower socio-economic status. Catterall's work shows the correlation between arts involvement and achievement specifically for students with low socio-economic backgrounds (2009).

Published by the Arts Education Partnership in 2002, *Critical Links* aggregates 62 summaries of research studies going back to the 1980s that connect arts and achievement across five areas: dance, drama, music, visual arts and multi arts. The work is an excellent resource for pointed connections of specific activities such as acting out a story in front of a classroom to better understand themes, involvement in arts decreasing drop-out rates, music and cognitive development, and many more rich subjects explored through research in the past. Other studies featured in *Critical Links* (2006) exemplify the positive relationship made between arts involvement and self-esteem. For instance, acquiring a new skill such as learning the guitar gives an individual the drive to take on other unfamiliar skills that may seem daunting at the start. When students gain confidence from their ability to succeed with an instrument or artistic technique, this confidence can be transferred to the classroom to help students engage in other difficult subjects.

GAPS IN EXISTING RESEARCH

There is a lack of research that demonstrates the academic impact of global competency as a whole; such evidence is available only when the individual components of global competency are addressed. Some organizations, such as the Partnership for 21st Century Skills, indicated that they are beginning to delve into this research in an attempt to find benefits of global competence as a whole but currently do not have any findings on the topic. Conversely, globalization scholar Yong Zhao stated that he felt linking academic achievement and global competence was unnecessary and inappropriate, as the importance of global competency should stand on its own. Further, with academic achievement being influenced by many factors both in and out of the classroom, it may be impossible to claim a substantial increase in achievement solely due to increased global competence.

Despite this scarcity, when global competency is broken down into individual parts, links can be found, although they are still imperfect. Studies that focus on skills and values and attitudes are more prevalent and readily available than research detailing behaviors or knowledge. Information about the academic impacts of geographic, historic, or current events knowledge tends to be dated, and most studies on the topic are more than ten years old. Changes in behavior are generally long-term and difficult to measure or attribute to one cause, and thus research on these topics limited.

Educational pedagogies such as project-based learning and arts integration are measured for their value as classroom strategies, and research abounds about the impact of such pedagogies on specific scenarios, including a number of studies on their relationship with academic achievement. While these studies are valuable, there is a lack of research that directly relates these pedagogies to global competence.

RECOMMENDATIONS FOR WORLD SAVVY

1. Supplement current program evaluation tools

Based on the existing evaluation tools World Savvy utilizes we identified areas that can be expanded or included to more directly connect World Savvy's programs with the classroom. World Savvy's current evaluation tools do a good job of linking their programs with each of the components of global competency from the matrix. To strengthen links between the programs to overall learning and achievement, additional measurements should be added to the evaluation tools.

We recommend including questions pertaining to whether students feel more or less:

- Engaged with school or learning as a result of the program;
- Enthusiastic or motivated for learning using new methods;
- Confident in their ability to learn and/or solve problems.

With additional questions on participant evaluations, World Savvy can evaluate how involvement in their programs and their resulting global competency permeates into other areas of life. For instance, program participation may inspire a new approach to learning in seemingly unrelated subjects, which would be a valuable way of making the case for World Savvy's impact. By bolstering its evaluation tools, World Savvy can better measure the effectiveness of its programs on aspects of learning and academic achievement.

2. Assess the long-term impact of World Savvy

Alongside supplementing current evaluation tools to greater assess World Savvy's impact on learning and achievement, World Savvy should connect their programs with medium and long-term educational achievements, both quantitatively and qualitatively.

We recommend incorporating the following actions into evaluation and marketing strategies:

- Conduct follow-up questionnaires with previous participants to assess variables such as high school graduation rates, college acceptance and enrollment rates, grades, and civic engagement.
- Create anecdotal "Where Are They Now?" features in marketing tools to focus on achievement as well as personal experiences with World Savvy's programs.
- Administer follow-up assessment tools to identify any differences between students who participated in World Savvy for one year or multiple years to determine cumulative effects of the programs.

3. Evaluate cultural capacity of participating teachers

Although teacher professional development was outside the scope of this project, the research consistently emphasized the importance of the teacher's ability to administer lessons effectively. For example, in order for project-based learning to be effective in narrowing the achievement gap in low-income, multiracial, and multiethnic schools, the project needs to be implemented by teachers who are dedicated to equity and to creating projects that are culturally relevant to the knowledge and beliefs of its students. Boaler emphasized that the effective enactment of the curriculum is more important than the curriculum itself. For these reasons, we believe it is essential for World Savvy to evaluate their teachers' cultural competency as well as the teachers' effectiveness in the delivery of the program. We recommend evaluating teachers at the beginning and end of their involvement with World Savvy programs to assess their instruction and global competence as well as how participation with World Savvy changed their competence or instruction techniques.

One option for monitoring teacher effectiveness is using an external tool for assessing intercultural competence, such as the Intercultural Development Inventory (IDI). The IDI evaluates an individual's cultural competence along a continuum from denial, where one overlooks differences, up to adaptation, where one works to bridge across differences. While the IDI would be an additional expense for World Savvy, it does buy the external validity that comes with using an evaluation tool designed and implemented outside the World Savvy environment. For cost-effectiveness, World Savvy may choose a small, random sample of participating teachers to assess. By pre- and post-testing even a select number of participating teachers, the IDI could show that World Savvy moved a teacher along the continuum to have greater impact on student learning and achievement. With World Savvy's professional development and customized consulting arms, the organization could consider hiring an IDI evaluator to bolster these efforts and use the consulting service as a potential income generator for the organization based on fees charged for evaluation services.

We recognize that evaluation assistance may be necessary to make the above recommendations viable. *Minnesota Evaluation Studies Institute (MESI), as part of the University of Minnesota's evaluation resources, partners with organizations such as World Savvy to provide internships for graduate students to gain real-world evaluation experience. World Savvy could contract a graduate student intern though MESI to help in supplementing their existing evaluation tools, create evaluation tools for evaluating teachers, collect and analyze new and existing data. For more information, access MESI's website at: http://evaluation.umn.edu/*

ANNOTATED BIBLIOGRAPHY

The entries in this bibliography represent the most relevant research found on the topics of global competency, project-based learning, arts integration, and their relationship with academic achievement.

Marketing and Fundraising Language

The World Savvy logo denotes the entry has been enhanced with marketing and fundraising language for World Savvy to implement into their communication materials. The language developed offers a suggested starting point for World Savvy to incorporate these specific studies into the case for further support from potential program participants (teachers, administrators) and funders who value academic achievement as a determinant of their support.

GLOBAL COMPETENCY

A Prospective Longitudinal Investigation of Social Problem-Solving Appraisals on Adjustment to University, Stress, Health, and Academic Motivation and Performance

Sarah R. Baker
2003

Baker, S.R. (2003). A prospective longitudinal investigation of social problem-solving appraisals on adjustment to university, stress, health, and academic motivation and performance. *Personality and Individual Differences 35*, 569-591.

Overview:

Baker's longitudinal study followed a cohort of college students in the United Kingdom in order to determine how their self-appraised social problem-solving skills impacted a variety of variables in the transition to college and the following years, including academic performance. Social problem solving skills were defined as the ability to identify problems and alternatives in order to cope with everyday life. Ninety one student participants completed a survey during their first two weeks of attending college in which they assessed their problem-solving skills. A second questionnaire was administered to the same sample during the second semester of their second year of college. During their third year, the school provided academic performance data and student information to researchers for analysis. Baker concluded that students with higher confidence in their problem-solving skills also had higher average GPAs than students with lower problem-solving skill appraisals. Additionally, higher problem-solving self-appraisals positively impacted general adjustment to college life, academic motivation, stress, and health, which in turn had a positive association with overall academic performance.

Marketing Language:

The World Savvy Challenge encourages students to approach global problems in creative new ways and imparts problem-solving skills that participants will use throughout their lives. Students with confidence in their own problem-solving abilities also have demonstrated higher college GPAs, an easier transition into college, and lower stress levels than students who aren't confident about their ability to solve problems.

Fundraising Language:

The World Savvy Challenge asks students to find creative new solutions to global problems and in the process teaches necessary problem-solving skills to participants. A 2003 longitudinal study from the United Kingdom linked the ability to solve problems and higher college academic achievement. Participating students assessed their own problem-solving skills upon entry into college, and researchers tracked their academic performance for the following three years. The students whose self-appraisals acknowledged high problem-solving skills also had higher GPAs than their counterparts who had lower confidence in their ability to solve problems effectively. Participation in World Savvy's programs can therefore contribute to confidence in problem-solving abilities and improved overall academic performance.

The Ill-Prepared U.S. Workforce:
Exploring the Challenges of Employer-Provided Workforce Readiness Training
Jill Casner-Lotto, Elyse Rosenblum, and Mary Wright
2009

Casner-Lotto, J., Rosenblum, E., & Wright, M. (2009). The ill-prepared U.S. workforce: Exploring the challenges of employer-provided workforce readiness training. Retrieved from: corporatevoices.org/system/files/Ill_preparedWorkforce_RR.pdf

Overview:

In an evaluation of the workforce training programs, the authors surveyed 217 corporate employers about the skills of their high school, two-year college, and four-year college graduate new hires. Most employers feel the need to provide training programs to impart the skills the employees will need on the job. Ninety two percent of employers ranked critical thinking skills as something they have a "high need" for in their business. They also reported a deficiency in these desired critical thinking skills in their current employees.

The Newspaper: A Reference Book for Teachers and Librarians
Edward DeRoche
1991

DeRoche, E.F. (1991). *The newspaper: A reference book for teachers and librarians*. Santa Barbara, CA: ABC-CLIO, Inc.

Overview:
DeRoche's book focuses on the Newspapers In Education program implemented in the U.S. in the 1970s and 1980s in fourth to eighth grades. The bulk of the book is designed to serve as a reference book with newspaper curriculum resources, strategies for using the newspaper in the classroom, and a list of newspaper names and addresses. Chapters 2 and 3 highlight existing research on Newspapers In Education and make the case for the value of newspapers in the classroom. DeRoche concludes that newspaper use in school contributed to increased vocabulary skills and improved reading comprehension. These results are specifically based on reading a newspaper in class but may potentially be extrapolated to other strategies involving reading about current events at a comparable level of difficulty to a newspaper.

Marketing Language:
Reading about and discussing current events leads to global competence and contributes to greater academic achievement. Students who read the newspaper in their classroom show a greater interest in classroom material, improvement in vocabulary skills and increased reading comprehension than students using only textbooks.

Fundraising Language:
World Savvy's programs engage students in thinking about the complexities of current events and global problems. When students use resources such as newspapers to read about current world events, studies indicate that academic achievement improves. DeRoche's book *The Newspaper* highlights benefits of using the newspaper and current events in the classroom; he states that research about newspapers in education show that programs utilizing newspapers in the classroom were associated with improved vocabulary skills and reading comprehension, two key elements of both test taking and achievement.

The Impact of Enhancing Students' Social and Emotional Learning: A Meta-Analysis of School-Based Universal Interventions
Joseph Durlak, Roger Weissberg, Allison Dymnicki, Rebecca Taylor, and Kriston Schellinger
2011

Durlak, J.A., Weissberg, R. P., Dymnicki, A.B., Taylor, R.D., & Schellinger, K.B. (2011 January/February). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development 82*(1): 405-432.

Overview:
As a meta-analysis, the article presents cumulative findings of 213 studies about social and emotional learning programs in kindergarten through twelfth grade students. Social and emotional learning is defined as the abilities to have adaptive responses to situations, appreciate the perspectives of others, recognize and manage emotions, and set positive goals. The meta-analysis determined the effect of social and emotional learning on outcomes including academic achievement, attitudes, and social behavior. The article concluded that social and emotional learning programs have a positive effect on academic achievement, and the average improvement in academic achievement is statistically converted to a percentile difference of 11%, meaning an average student saw an 11-percentile point gain in achievement, from the 50th percentile to the 61st percentile, after participating in a social and emotional learning program.

Marketing Language:
World Savvy Challenge encourages students to work with others and appreciate different points of view. This skill set is associated with improved academic achievement. A recent analysis shows that social and emotional learning, including taking other perspectives, can have up to an 11% increase in achievement for the average student.

Empathy and perspective taking are necessary skills for the 21st century and associated with a positive effect on academic achievement. Students that participated in programs targeting these skills reported greater improvements in test scores and grades than students who did not participate.

Fundraising Language:
A meta-analysis conducted in 2011 by researchers from Loyola University – Chicago and University of Illinois at Chicago established a relationship between social and emotional learning and student academic achievement. Aggregating the findings of 213 studies, researchers determined that the average student could move from the 50th percentile into the 61st percentile of test results after participating in a program focusing on social and emotional learning in the classroom.

Social and emotional learning is defined in this study as the abilities to have adaptive responses to situations, appreciate the perspectives of others, recognize and manage emotions, and set positive goals. World Savvy works to impart and enhance these skills in the World Savvy Challenge, in which students collaborate to creatively solve a world problem. To be successful in the task, participants must value other perspectives and empathize with collaborators and those affected by the global problem while responding to the challenge. The meta-analysis of social and emotional learning establishes that the World Savvy Challenge can have a positive effect on student academic achievement.

Communications Media and Current Events Knowledge Among College Students.
Christopher Lucas and Charles Schmitz
1988

Lucas, C. L. & Schmitz C. D. (1988). Communications media and current events knowledge among college students. *Higher Education, 17*(2), 139-149. Retrieved from http://www.jstor.org/stable/3446763

Overview:
A sample of 863 college students were surveyed to determine what sources of media are most used, actual knowledge of current events, and how that knowledge related to a variety of variables, including grade point average and self awareness of knowledge. Statistical regression analyses showed that an increase in grade point average led to an increase in current events knowledge. While an established relationship in the other direction would be more beneficial for World Savvy, the study does demonstrate an existing relationship between grade point average and knowledge of current events.

Education for Life and Work: Developing Transferrable Knowledge and Skills in the 21st Century
James W. Pellegrino and Margaret L. Hilton
2012

Pellegrino, J. and Hilton, M. (2012). *Education for Life and Work: Developing Transferrable Knowledge and Skills in the 21st Century.* Washington, DC: National Research Council of the National Academies.

Overview:
The National Research Council (NRC) developed this 250 page report to help the public understand the research related to teaching and learning of 21st century skills such as problem solving, critical thinking, communication, collaboration, and self-management. The report aggregates findings from previous research to connect these skills with long term outcomes in education, health, and labor.

The NRC clarifies and interprets the various definitions of terms such as deeper learning, 21st century skills, and new basic skills in an effort to provide cohesive definitions for their work, identify gaps in research, find relationships among the terms, and identify their relationship with competence. The report identifies three overlapping and interactive domains of competence: cognitive, intrapersonal, and interpersonal. The cognitive domain involves reasoning and memory, the intrapersonal involves the ability to manage one's behaviors and emotions to achieve one's goals, and interpersonal involves expressing ideas and interpreting messages from others. The report used these domains to survey the literature and find evidence of their importance to specific adult outcomes. They found the evidence is limited, as research on the subject is not robust and the primary evidence is correlational in nature. Specific to educational performance, the report highlights studies that link cognitive competencies to educational outcomes including improved achievement in test scores. While the report's definition of cognitive competencies does include critical thinking, as one aspect of the domain, the studies they feature refer to intelligence and IQ rather than critical thinking skills.

A general theme of the evidence is that measurable cognitive skills, personality traits, and other intrapersonal and interpersonal competencies developed in childhood and adolescence are, at best, modestly predictive of adult successes, particularly in the labor market. Educational attainment is strongly predictive of labor market success even in research approaches designed to approximate random assignment experiments. Measurable cognitive, intrapersonal, and interpersonal competencies account for surprisingly little of the impact of education on future wages (wages, in economic theory, reflect productivity).

Reducing Academic Achievement Gaps:
The Role of Community Service and Service-Learning
Peter Scales, Eugene Roehlkepartain, Marybeth Neal, James Kielsmeier, and Peter Benson
2006

Scales, P. C., Roehlkepartain, E.C., Neal, M., Kielsmeier, J.C., & Benson, P.L. (2006). Reducing academic achievement gaps: The role of community service and service-learning. *Journal of Experiential Education, 29*(1): 38-60.

Overview:
Scales et al. used multiple methods to study the relationships between service learning, academic success, and socioeconomic status for students in grades 6-12. The study used a national sample of principals, a weighted sample of middle school and high school students, and a sample of middle and high school students in Colorado Springs, Colorado. The authors discovered that principals, especially in urban, high poverty schools, reported that service learning had a positive impact on

attendance and engagement. Based on student data, the study concludes that service has a positive relationship with academic achievement and reducing the achievement gap: “service seems to have a positive relationship with a smaller school success gap between students from lower and higher income backgrounds” (pg. 51). Students with lower socioeconomic status that participated in service learning had higher attendance, higher grades, and were more engaged and motivated than their peers from a similar background who did not contribute service to the community. The authors advocate for a longitudinal study to be undertaken so causality can be proven. The relationships demonstrated in the study establish that service learning and community service are two of many elements necessary for improving student achievement and reducing the achievement gap.

Marketing Language:
World Savvy Challenge not only imparts practical knowledge, it also inspires youth to take action in their community on causes they believe in. After the Challenge, up to 50% of participating students indicate that they are more likely to volunteer their time in their community, which recent research links to improved academic performance. Students that volunteer in their communities have better attendance, better grades, and are more motivated in school than students that do not participate in service.

Research shows that students involved in service or service learning projects, like World Savvy’s American Youth Leadership Program, have higher grades, better attendance, and are more engaged in the classroom than students that don’t participate in service.

Fundraising Language:
One of the components of global competency that World Savvy works to develop is taking action on issues that matter to students. Participating in community service projects is a behavior associated with this component. Service is an essential aspect of World Savvy’s American Youth Leadership Program and a resulting behavior from the World Savvy Challenge. This service learning program imparts global competence and the benefits of international exchange, yet also has the potential to play a part in reducing the achievement gap in education. In a 2006 study, Scales et al. analyzed the relationships between service learning, academic success, and socioeconomic status using two samples of students in grades six through twelve and one sample of principals. Results showed a positive relationship between service and academic achievement, most notably for those with low socioeconomic status. Students with low socioeconomic status that participated in service learning had higher grades, were more motivated in school, had improved attendance, and overall greater academic achievement than their peers from similar backgrounds who did not participate in service. Service learning can thus be considered as part of a larger strategy to reduce the achievement gap.

The Global Achievement Gap
Tony Wagner
2008

Wagner, T. (2008). *The global achievement gap.* New York: Basic Books.

Overview:
Wagner critiques the existing educational system as lacking in developing the necessary skills that graduates will need in the 21st century. He makes a case for the need for change. The book closes with case studies of three different schools that have adjusted their approach to education and seen results in achievement, skills, and college acceptance rates. These schools serve as models for the future of education, and include strategies such as project based learning and improving global competence.

Social Competence at School:
Relationship between Social Responsibility and Academic Achievement
Kathryn Wentzel
1991

Wentzel, K. (1991). Social competence at school: Relationship between social responsibility and academic achievement. *Review of Educational Research, 61*(1), 1-24. Retrieved from http://www.jstor.org/stable/1170665

Overview:
Wentzel makes the argument that social responsibility is a product of education, but also contributes to improved educational outcomes. Social responsibility is generally defined as "adherence to social rules and role expectations," which encompasses self-awareness and empathy among other things. The article links these traits with improved academic performance. Social responsibility improves interactions with both teachers and peers, which leads to enhanced cognitive function.

PROJECT-BASED LEARNING

The Effects of Problem-Based Active Learning in Science Education on Students' Academic Achievement, Attitude, and Concept Learning
Orphan Akinoglu and Ruhan Özkardes Tandogan
2007

Akinoglu, O., & Özkardes Tandogan, R. (2007). The effects of problem-based active learning in science education on students' academic achievement, attitude, and concept learning. *Eurasia Journal of Mathematics, Science & Technology Education 3*(1), 71-81.

Overview:
A mixed methods research study of seventh grade science students in Istanbul, Turkey, concluded that using problem-based active learning methods focusing on teaching problem solving skills resulted in higher test scores and improved attitudes towards learning, as compared to a control group who had traditional classroom teaching methods. Pre- and post-test scores of both control and treatment groups were compared to determine the effect of problem-based learning methods; researchers found a statistically significant 2.64 point increase in post-test scores for the treatment group. Additionally, students in the treatment group expressed greater interest in course material.

Learning From Teaching:
Exploring the Relationship Between Reform Curriculum and Equity
Jo Boaler
2002

Boaler, J. (2002). Learning from teaching: Exploring the relationship between reform curriculum and equity. *Journal for Research in Mathematics Education, 33*(4), 239-258.

Overview:
This article contains insights about what it takes to make project-based learning and related reform practices work in the context of low-income urban schools. The study shows that reform-oriented practices in mathematics can be effective in reducing the achievement gap with students in targeted middle school and high school mathematics classrooms. Boaler provides evidence that the "pedagogy of poverty," which refers to the process in which "working class kids are prepared for working class jobs," can be overcome, but only when well-designed and open-ended projects are implemented by teachers who are dedicated to equity. The curriculum itself is only part of the solution, what is more important is effective enactment of that curriculum.

The two studies discussed in this article demonstrate that, when approached with sufficient care, reform-oriented methods achieve significant results in academic achievement. The article highlights test scores that were higher than the national average after project-based learning programs were implemented, despite the school being located in one of the poorest areas of England. Additionally, the programs were associated with a reduction in the inequalities that are typically associated with gender or social class.

Marketing Language:
States around the nation struggle with the growing academic achievement gap between White students and students of color. This struggle is exemplified Minnesota where American Indian students had high school graduation rates of 42%, which was half the rate of White non-Hispanic students at 84%. Graduation rates among African American and Hispanic students showed the same disparity, with high school completion rates of 49% and 51%, respectively (MREA)*. These numbers show that traditional methods of education are not serving the needs of America's changing population. Project-based learning curricula, when combined with teacher preparedness, can improve academic results and also help to reduce the achievement gap.

*MREA: http://mnrea.org/u-s-grad-rate-report-highlights-minnesota-achievement-gaps/

Fundraising Language:
World Savvy provides educators, administrators, cultural institutions, and associations with a range of professional development services that build knowledge, skills, and dispositions needed to educate for global competency. Research conducted in 2002 by Jo Boaler of Stanford University demonstrates that reform-oriented practices in mathematics can be effective in reducing the achievement gap with students in low-income, urban, middle schools and high schools. Boaler provides evidence that the "pedagogy of poverty," which refers to the process in which "working class kids are prepared for working class jobs," can be overcome only when well-designed and open-ended projects are implemented by teachers who are dedicated to equity. World Savvy contributes to the efforts to reduce the academic achievement gap by supporting the professional development needed to successfully implement project-based learning.

Standardized Test Outcomes for Students Engaged in Inquiry-Based Science Curricula in the Context of Urban Reform
Robert Geier, Phyllis C. Blumenfeld, Ronald W. Marx, Joseph S. Krajcik, Barry Fishman, Elliot Soloway, and Juanita Clay-Chambers
2007

Geier, R., Blumenfeld, P., Marx, R., Krajcik, J., Fishman, B., Soloway, E. & Clay-Chambers, J. (2007). Standardized test outcomes for students engaged in inquiry-based science curricula in the context of urban reform. *Journal of Research in Science Teaching, 45* (8), pp. 922-939. Retrieved from: http://onlinelibrary.wiley.com/doi/10.1002/tea.20248/pdf

Overview:
This article examines the effects of a multifaceted scaling reform that focuses on supporting standards-based science teaching in urban middle schools. The efforts done in Detroit Public Schools (DPS) centered on highly specified and developed project-based inquiry science units supported by aligned professional development and learning technologies. DPS is 91 percent African American; to be effective, the curriculum must be designed and implemented for students to be able to relate to the material. Two cohorts of seventh and eighth graders were compared with the remainder of the district population, using results from the state standardized test in science. Both the initial and scaled up cohorts showed increases in science content understanding and process skills over their peers, and significantly higher pass rates on the statewide test.

The effect of participation in units at different grade levels was independent and cumulative, with higher levels of participation associated with similarly higher achievement scores. Examination of results by gender revealed that the curriculum effort succeeded in reducing the gender gap in achievement evidenced by improved scores of urban African-American boys. These findings demonstrate that standards-based, inquiry science curriculum can lead to standardized achievement test gains in historically underserved urban students, when the curriculum is highly specified, developed, and aligned with professional development and administrative support. Inquiry instruction must also incorporate materials that engage and are congruent with the culturally relevant knowledge and beliefs of students from diverse backgrounds.

Marketing Language:
Research shows that multifaceted, scaled reform that supports project-based inquiry science learning, along with highly specified professional development and learning technologies, leads to significantly higher academic achievement throughout the years. In addition, inquiry instruction must incorporate materials congruent with the cultural knowledge and beliefs of students from diverse backgrounds. The results of this learning, professional development, and cultural awareness narrows the academic divide between male and female students of color.

Fundraising Language:
A 2007 research study of standardized test outcomes for project-based inquiry science curriculum in Detroit Public Schools showed increases in science content understanding, process skills and academic achievement when compared statewide to students who did not take part in the inquiry science curriculum. Findings of the study show that the most effective project-based inquiry science curriculum incorporated materials that engage culturally relevant knowledge and beliefs of students from different backgrounds. The study also highlighted the need for curriculum to align with professional development and administrative support. The project-based World Savvy Challenge aligns with these findings and provides a culturally relevant experience to improve students' learning. World Savvy's

programs for middle and high school youth use pedagogies such as project-based learning and collaborative problem-solving to build students' knowledge and awareness of global competency. In addition, all of World Savvy's programs include professional development, curriculum resources and coaching for partner educators.

The Effectiveness of Project-Based Learning on Pupils with Learning Difficulties Regarding Academic Performance, Group Work and Motivation
Diamanto Filippatou and Stavroula Kaldi
2010

Filippatou, D. and Kaldi S. (2010). The Effectiveness of Project-Based Learning on Pupils with Learning Difficulties Regarding Academic Performance, Group Work and Motivation. *International Journal of Special Education, 25*(1)

Overview:
This study focuses on the effectiveness of project-based learning in primary school students with learning difficulties. The findings support that students with learning difficulties can gain benefits through project-based learning in academic performance, motivation, and group work (acceptance in the group, cooperation, and engagement in the learning process). Children with learning difficulties can engage in learning experiences through project-based learning at their own level to meet their social and academic goals. The results showed that these students enriched and expanded their knowledge on units studied mainly through hands-on, field based activities and experiential learning because this approach applies better to their educational needs for a multi-sensory teaching method.

Marketing Language:
Project-based learning allows students to expand knowledge, trigger learning, and use different sources to intake information. While experiencing different activities and learning methods, students with difficulty learning are more confident in their self-efficacy to perform well, are more open to ask questions, cooperate, be motivated, and feel accepted by their peers. This interaction with the material allows students to learn at their own pace and feel confident about their learning, resulting in improved academic achievement.

Fundraising Language:
A 2010 research study out of Greece demonstrates that project-based learning positively affects students with learning difficulties by allowing them to learn at their own pace through hands-on, field and experimental based learning. This approach increases academic achievement, motivation and group work. World Savvy's programs for middle and high school youth use pedagogies such as project-based learning and collaborative problem-solving to build student knowledge and awareness of global competency. This research indicates that World Savvy's use of

project-based learning may also contribute to higher academic achievement and increased motivation for the students that participate in World Savvy programs.

A Review of Research on Project-Based Learning
John W. Thomas
2000

Thomas, J. (2000). A Review of Research on Project-Based Learning. Retrieved from: http://www.bie.org/index.php/site/RE/pbl_research/29

Overview:
John Thomas, of the Buck Institute for Education, presents an overview of project-based learning (PBL). His research includes PBL's different names and definitions, as well as its uses and effectiveness in elementary and secondary schools. Thomas develops five criteria to define PBL:

1. "projects are central, not peripheral to the curriculum";
2. "projects are focused on questions or problems that 'drive' students to encounter (and struggle with) the central concepts and principals of the discipline";
3. "projects involve students in a constructive investigation";
4. "projects are student-driven to some significant degree";
5. "projects are realistic, not school-like."

Expeditionary Learning (EL) is a PBL design that emphasizes high achievement through intellectual inquiry, character development and community building. The gains in academic achievement of EL schools are dramatic. In Dubuque, Iowa, three elementary schools implemented EL programs. After two years, two of these schools showed gains on the Iowa Test of Basic Skills from "well below average" to the district average; the third school showed a gain equivalent from "well below average" to "well above the district average." Gains in reading from 1995 to 1997 for the three EL schools ranged from 15% in one school to over 90% in the other two schools, while the averages for other schools in the district remained unchanged. In Boston, eighth-grade students at an inner-city school that offered EL programs exhibited the second highest scores in the district on the "Stanford 9 Open Ended Reading Assessment." Elementary schools in this district with EL programs ranked 11th in mathematics and 17th in reading out of 76 elementary schools on this same test, while serving a population that is 59% Hispanic and 27% African American.

This article also evaluates PBL gains in student's problem solving capabilities and gains in students' understanding of the subject matter. Faculty of the Illinois Mathematics and Science Academy and the Chicago Academy of Science studied the effects of high school project-based learning on academic achievement and problem solving skills. Students from schools with project-based learning performed as well as or better than students at the schools with traditional approaches to knowledge of mathematical concepts, and three times as many students at the school with project-based learning attained the highest possible grade on the national examination as compared to those in the traditional school.

Marketing Language:
Project-Based Learning (PBL) achieves gains in students' problem solving capabilities, academic achievement and understanding of the subject matter. Expeditionary Learning (EL) is a PBL design that combines intellectual inquiry, character development, and community building, while proving to dramatically increase academic success. PBL curriculum is inclusive, and when implemented effectively, can narrow the achievement gap, increase problem-solving capabilities, and improve understanding of course material.

Fundraising Language:
A review of research on Project-Based Learning (PBL) in 2000 by John W. Thomas of Buck Institute for Education found that PBL increases academic achievement, problem-solving capabilities, understanding of course material, and ultimately helps to narrow the achievement gap. The World Savvy Challenge engages students in project-based learning and collaborative problem solving around a global theme, empowering students to take informed action to address 21st century challenges locally and globally. The project-based learning methods employed in the World Savvy Challenge elevate students educational outcomes beyond knowledge of the task at hand and contribute to improved overall academic achievement.

ARTS INTEGRATION

Doing Well and Doing Good by Doing Art: The Effects of Education in the Visual and Performing Arts on the Achievements of Young Adults
Catterall, James
2009

Catterall, James S. (2009). *Doing Well and Doing Good by Doing Art: The Effects of Education in the Visual and Performing Arts on the Achievements and Values of Young Adults.* Los Angeles/London: Imagination Group/I- Group Books.

Overview:
James Catterall, prominent arts integration researcher, proves that participation in performing and visual arts has a strong, positive relationship with academic achievement and pro-social behavior. In his book, his findings are two-fold. First, he highlights his work done in the late 1990s which followed over 25,000 middle and high school students for several years and showed results that those more involved in the arts performed notably better academically. In tenth grade, highly involved arts students scored 28 percentage points higher on standardized test distribution than the category of students with low arts involvement; in twelfth grade the percentage point difference was 18.1, showing consistency across the grade levels. The second part of Catterall's work comes through a follow up study on 12,000 of the original participants to see the impact arts played as their lives grew with the oldest students being 26 years old at time of survey. The longitudinal analysis shows long-term outcomes from intensive involvement in visual and performing arts during secondary school such as doing better and going further in college and greater involvement in community service and pro-social activities.

Catterall's work makes significant connections between involvement in arts learning and academic success. Following up with students, high-arts students were five percentage points more likely to report being a student at age 20, with 29 percent enrolled in four-year colleges, compared to only 11.4 percent of the low-arts students. Not only were enrollment rates different, but the achievement in college showed a noteworthy divide, with nearly 15 percent of high arts students earning mostly A's and B's while between 8 and 9 percent of low-arts students shared this accomplishment. Not only does the study highlight academic achievement, but it also shows students with arts integrated into their lives exhibit greater "pro-social" behavior. For instance, at age 20, over one-third of high arts students reported participating in volunteer work, while less than one fifth of low arts students do so. Another key element throughout Catterall's research is the comparison of high socio-economic status (SES) and low SES, which the research illuminates the positive impacts of arts involvement, especially for students of lower SES.

Marketing Language:
World Savvy's Media & Arts Program (MAP) for middle and high school students uses visual and performance arts along with new media to exemplify issues of global concern for participating students. James Catterall's research *Doing Well and Doing Good by Doing Art* highlights the strong connection of students highly involved with arts and their academic achievement. Following students in a longitudinal study, Catterall's work shows high-arts students have significantly higher classroom performance, college enrollment and success, and overall are more socially conscious individuals. Through World Savvy's MAP, students work around a project that imbues their curriculum with creative opportunities to grow their appreciation and experience in the arts.

Fundraising Language:
A longitudinal study by James Catterall evaluates over 10,000 students from middle and high school through their early 20s to measure the impact of arts involvement on achievement. Findings show significant impact of arts involvement, such as during high school, students highly involved in arts programs performed, on average, 18 percentage points higher overall than students with low arts involvement. Following the same sample into adulthood, students that had high arts involvement during middle and high school were 17 percent more likely to be enrolled in a four-year college, and also more likely to be achieving A's and B's. World Savvy's Media & Arts Program reflects this research by engaging students with arts integrated into their projects, compelling a connection with global competency through performing and visual arts.

Critical Links: Learning in the Arts and Student Achievement and Social Development
Richard Deasy, Editor
2002

Deasy, R. (2002) *Critical Links: Learning in the Arts and Student Achievement and Social Development.* Washington, DC: Arts Education Partnership.

Overview:
Published just over a decade ago, this extensive compendium of 62 summaries on research done connecting the arts and achievement still stands as a respected collection and valuable resource for those looking to make specific connections with the arts and the positive achievement and behavior outcomes associated with them. AEP commissioned top education researchers to perform the task of putting this research together including: James Catterall, and Lois Hetland and Ellen Winner, both of Project Zero at the Harvard Graduate School of Education. Selections are categorized into five art areas: dance, drama, music, visual arts and multi arts. While the studies date back to the 80s, the document is an excellent resource for pointed connections of specific activities such as acting out a story in front of a classroom to better understand themes, involvement in arts decreasing drop-out rates, music and

cognitive development, and many more rich subjects explored through research in the past.

Creativity, Innovation and Arts Learning: Preparing all Students for Success in a Global Economy
Sandra Ruppert
2010

Ruppert, S. (2010). Creativity, Innovation and Arts Learning: Preparing all Students for Success in a Global Economy. Retreived from: http://www.aep-arts.org/wp-content/uploads/2011/12/Creativity_Commentary_02-03-10.pdf

Overview:
The report is written by Sandra Ruppert, Director of Arts Education Partnership (AEP). Ruppert is a leading voice in the discussion on the value of arts integration into K-12 education. She has authored key publications including *Critical Evidence: How the Arts Benefit Student Achievement* and *From Anecdote to Evidence: Assessing the Status and Condition of Arts Education at the State Level.* In this article, Ruppert stresses the importance of an innovative, creative curriculum alongside traditional math and science curriculum to foster a competitive workforce through the U.S. education system. Citing a survey done by the New Commission on the Skills of the American Workforce, creativity ranked third in skills employers anticipate increasing in importance in the coming years. With innovation and entrepreneurship rooted in creativity, arts education is a natural place to foster and grow this skill in American students.

The promotion of 21st century skills throughout the education community has consistently referenced arts as a critical element of a student's education, both as a subject and integrated into other disciplines. The appendix of this report includes five state examples where arts education integration is being included as an essential component. These states have dedicated official "Task Forces" on 21st century skills, Arts and Creativity in Education and other initiatives to actively support the state's strategy for incorporating these skills into their education system. Highlights include: Massachusetts' recommendation for the development of a "Creative Challenge Index" to measure the quality and quantity of ways their students engage in creative work; Wisconsin's Task Force has redesigned their content, performance and proficiency standards for a number of core subjects including art and design, music, dance and theater; under Governor Mike Easley in 2005, North Carolina launched the Center for 21st Century Skills, the first in the US focusing on improving the state's education for students' success in the global economy. Ohio and West Virginia's efforts are also addressed.

Marketing Language:
Across the country states are recognizing the importance of incorporating arts into K-12 classrooms both as a stand alone subject and infused into curriculum as a teaching method. Recognizing the need to prepare students with skills for the 21st century, the arts promote innovation and creativity, two essential elements of the entrepreneurial minds that are highly demanded by colleges and employers worldwide. World Savvy's Media & Arts Program taps into this insight and allows youth to engage in new ways of understanding global issues by making connections through arts.

Fundraising Language:
With an emphasis on innovation and entrepreneurism, the world is demanding creative thinkers. States across the country are responding to the changing demands by developing task forces and initiatives to promote the arts as a way of learning for students, both as a subject on its own and a method of engagement for class projects. This effort to bring 21st century skills to K-12 schools is supported by World Savvy's Media & Arts Program, which invites students to engage in global issues and pressing world topics through creative team and project interactions.

Critical Evidence: How the Arts Benefit Student Achievement
Sandra Ruppert
2006

Ruppert, S. (2006). Critical Evidence: How the Arts Benefit Student Achievement. *National Assembly of States Arts Agencies in collaboration with the Arts Education Partnership.*

Overview:
Director of Arts Education Partnership (AEP), Sandra Ruppert's publication describes in nontechnical terms the research connecting arts and academic success. With reference to the AEP commissioned *Critical Links*, a compendium published in 2002 of peer reviewed studies on the same topic, Ruppert breaks down the major findings of arts integration researchers to compel the audience to understand, embrace, and promote the proven positive impact arts has on a student's education outcomes. Ruppert highlights a 2005 Harris Poll of American public opinion towards arts education. Ninety-three percent of Americans agreed that arts are vital to providing a well-rounded education for children, 86 percent thought arts education encourages and assists in a child's attitude toward school, and 79 percent believed incorporating the arts into education is the first step in adding back what's missing in public education today.

The report touts research to connect achievement and success with the arts, such as James Catterall's extensive work on the topic. Taking the SATs as a benchmark, students with four years of arts coursework in high school scored an average of 58 points higher on verbal and 38 points higher on the math portion than students with a half year or less of arts coursework. Some attribute the rhythm in music emphasizing proportion, patterns, and ratios to be similar to mathematical relations. Highlighting a study where at-risk boys aged 8 to 19 were taught guitar, the results showed their newfound skill allowed improved confidence and self-esteem. A restored or new sense of self can assist youth in overcoming their fears, and feel a sense of success and accomplishment, which can translate into improved motivation for learning new concepts in the classroom. These, along with other research findings, help Ruppert build the case for arts' positive impact on academic achievement and educational success.

Marketing Language:
World Savvy's Media & Arts Program engages students in arts education to make connections to address a global theme. Students who are highly engaged with arts during their learning experience have seen positive impacts on academic achievement, standardized test scores, as well as improved confidence and self-esteem as their new artistic abilities are realized. Incorporating arts into student activities allows for creativity to flourish and student's potential to be maximized.

Fundraising Language:
Many studies have been conducted to show substantial, distinct connections between arts and academic achievement. From young children comprehending a story through dramatic presentation to high school students achieving higher SAT scores due to their involvement in arts, the positive impact of arts integration into a student's education is of paramount importance. One study shows students with four years of arts coursework in high school scored an average of 58 points higher on the SAT verbal section and 38 points higher on the math portion than students with a half year or less of arts coursework. Some attribute the rhythm in music emphasizing proportion, patterns, and ratios to be similar to mathematical relations. Positive relationships can also be made between student involvement with arts and self-esteem. The ability for students to succeed in acquiring a new skill or ability builds confidence and inspires motivation for learning more new concepts. World Savvy's Media & Arts Program represents an outside activity for students to engage with the arts through their examination of a global issue. Successful completion of this program allows students have spent time in an artistic capacity, expressing themselves and the topic at hand in a creative, innovative way.

BIBLIOGRAPHY

The following key has been designed to enhance the utility of this bibliography for World Savvy. The five categories represent key areas of interest to incorporate into marketing and fundraising materials based on subject matter.

AI Arts Integration
GC Global Competency
PBL Project-Based Learning
T Teacher Professional Development
WFR Workforce Readiness

PBL Akinoglu, O., & Özkardes Tandogan, R. (2007). The effects of problem-based active learning in science education on students' academic achievement, attitude, and concept learning. *Eurasia Journal of Mathematics, Science & Technology Education 3*(1), 71-81.

PBL Ansbacher, T. (1998). John Dewey's experience and education: Lessons for museums. *Curator: The Museum Journal 41*(1), 36-50. Retrieved from:

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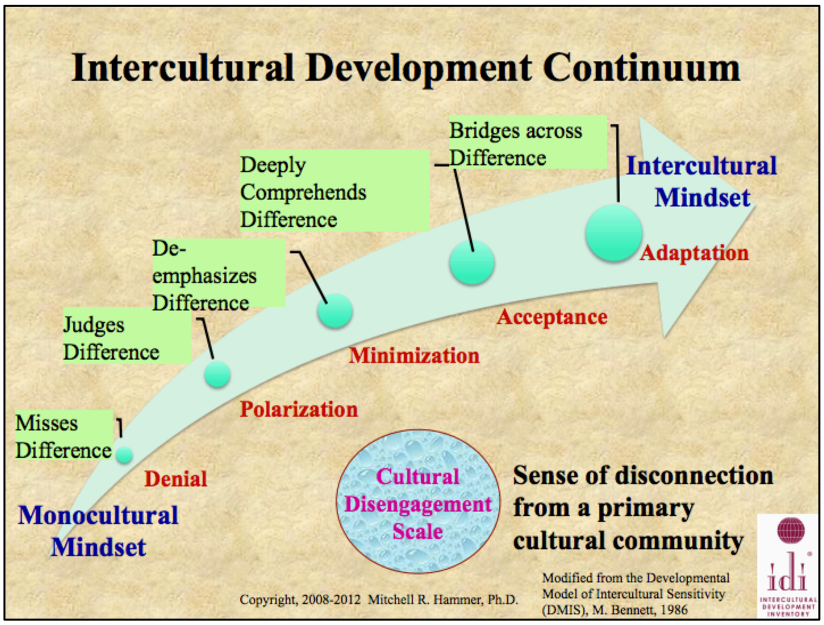
APPENDIX: INTERCULTURAL COMPETENCY MEASUREMENT

Many studies stress the importance of teacher effectiveness in any educational program or classroom activity. While a lesson plan may be perfectly complete, without proper implementation, it loses its value. Recommendation #3 encourages World Savvy to measure the intercultural competence of teachers and coaches of their programs. This evaluation would serve two purposes: 1) to ensure effective practitioners are administering their programs, and 2) to show improved cultural competence due to involvement with World Savvy, strengthening their case for increasing global competency in the classroom.

The Intercultural Development Inventory (IDI) is one example of an external evaluation method designed to measure intercultural competence. IDI was developed by Mitchell Hammer in 1998 and has shown to be a valid assessment tool of intercultural competence, measuring a person's placement on a continuum on the topic.



The IDI is administered as a 50-item paper questionnaire or online and produces a profile of an individual's collective capability to recognize and adapt to cultural differences.

IDI identifies five core orientations along the continuum. MDB Group, a business consulting firm that uses IDI, describes some characteristics of each stage as:

"Denial:
Being comfortable with the familiar. Not anxious to complicate life with "cultural differences." Not noticing much cultural difference around you. Maintaining separation from others who are different.

Polarization:
A judgment orientation grounded in a sense of "us" and "them." Can take the form of a *Defense* or *Reversal* perspective.

Polarization - Defense: A strong commitment to one's own thoughts and feelings about culture and cultural difference. Aware of other cultures around you, but with a relatively incomplete understanding of them and probably fairly strong negative feelings or stereotypes about some of them. This may lead to some distrust of, and a tendency to be judgmental about, cultural behavior or ideas that differ from one's own.

Polarization - Reversal: The opposite of Defense. The person feels that some other culture is better and tends to exhibit distrust of, and be judgmental of, their own culture.

Minimization:
Aware that other cultures exist all around you, with some knowledge about differences in customs and celebrations. Not putting down other cultures. People from other cultures are pretty much like you, under the surface. Treating other people as you would like to be treated. A tendency to assume you understand the situation the same as a person from another culture.

Acceptance:
Aware of your own culture(s). See your own culture as just one of many ways of experiencing the world. Understanding that people from other cultures are as complex as you. Their ideas, feelings, and behavior may seem unusual, but you realize that their experience is just as rich as your own. Being curious about other cultures. Seeking opportunities to learn more about them.

Adaptation:
Recognizing the value of having more than one cultural perspective available to you. Able to "take the perspective" of another culture to understand or evaluate situations in either your own or another culture. Able to intentionally change your culturally based behavior to act in culturally appropriate ways outside your own culture."

Source: http://mdbgroup.com/intercultural-development.html

Comprehensive report on the IDI and five orientations along the continuum:

Hammer, M.R. (2008). The Intercultural Development Inventory (IDI): An Approach for assessing and building intercultural competence. In M.A. Moodian (Ed.), *Contemporary leadership and intercultural competence: Understanding and utilizing cultural diversity to build successful organizations.* Thousand Oaks, CA: Sage.

Many studies have been done related to the IDI.
For sources, see bibliography at:
http://www.idiinventory.com/pdf/bibliography-of-publications.pdf