

# **Academy In Manayunk (AIM): Changing Learning Differences from Deficits to Assets**

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## **Summary**

Research indicates that six to seven percent of children have learning differences (International Dyslexia Association 2008). Yet many either go undiagnosed or, if diagnosed, are not offered targeted educational strategies that address their learning differences. Approximately one-third of children identified with learning disabilities drop out of high school—twice the rate of their non-disabled peers.

Academy In Manayunk (AIM), a research-to-practice private, nonprofit school developed in conjunction with The Lab School of Washington®, provides lessons for the mainstream education system and educators to ensure that no children are limited by learning differences. AIM incorporates learning through the arts with rigorous academics to meet the individual learning styles of its students. AIM also invests significantly in teacher training and professional development.

The School District of Philadelphia, including charter school students, has close to 200,000 students. The 44 percent of those students who drop out before completing high school create substantial financial and social burdens for the region. The AIM school, with its focus on improving literacy skills in children beginning as early as first grade, returns significant resources to the community by helping to ensure high school graduation and increasing rates of college attendance, as also demonstrated by The Lab School of Washington upon which it is modeled.

For \$10,000 more than the School District of Philadelphia allocates for special education students, AIM returns \$260,000 to society by enabling each student to graduate from high school with the academic skills necessary to compete in the workforce, and \$1,000,000 by setting those students on the path to college graduation.

## **The Problem: Failure to Address Issues Underlying Learning Differences**

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Research indicates that six to seven percent of children—approximately four million—have learning differences. Of those children, approximately 85 percent struggle the most with reading and language processing. Moreover, as much as 20 percent of the general population has

symptoms of dyslexia, such as poor writing and spelling, slow and inaccurate reading, and a tendency to confuse similar words. If dyslexia is left undiagnosed by age 10, a critical window to remediation is closed. Yet, most children with dyslexia have average or high IQs, and one-third of all entrepreneurs are dyslexic (Logan 2007).

As a result of improper treatment and/or late diagnosis:

- Two-thirds of secondary students with learning disabilities read three or more grade levels behind, and 20 percent read five or more grade levels behind (National Center for Learning Disabilities 2009).
- More than 38.7 percent of children with learning disabilities drop out of high school, compared to 11 percent of the general student population (National Center for Learning Disabilities 2009).
- Three-quarters of learning-disabled students remain learning-disabled in the ninth grade (National Institutes of Health 1994).
- Individuals with learning differences often experience symptoms of anxiety, depression and low self-esteem (Ryan 2004).

National studies (National Center for Learning Disabilities 2009) show that 80 percent of all students in special education in the public schools have learning disabilities, and two-thirds of secondary students with learning disabilities are reading three or more grade levels below their peers. Approximately one-third of children identified

with learning disabilities drop out of high school—twice the rate of their non-disabled peers. A study of dropout rates in Philadelphia public high schools during the 2003-04 school year showed that a shocking 78 percent of eighth-grade students who failed either math or English later dropped out of high school. Our educators have become very good at assessing learning challenges, but few institutions have created systematic interventions that directly address the issues underlying the learning challenges.

## **What Is AIM?**

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In the summer of 2006, the Academy In Manayunk (AIM), a research-to-practice private, nonprofit school developed in partnership with The Lab School of Washington®, opened its doors. A team of educators, parents and community leaders had come together to create an extraordinary educational environment for intelligent children with learning disabilities. The Lab School of Washington, pioneered by Sally L. Smith 40 years ago, has been recognized as a Blue Ribbon School and received national validation from the U.S. Department of Education. This program, which AIM has fully adopted, emphasizes learning through the arts and problem-based learning while replicating the Academic Club Methodology developed by Smith, an internationally recognized leader

in the field of learning disabilities. It is in this multi-sensory, full immersion model that children are able to develop their right brains and tap into their creativity and team-building skills, and approach learning through an inquiry model.

According to the co-founders of AIM, Patricia Roberts and Nancy Blair, "AIM is Philadelphia's research-based, college preparatory school for children with learning differences. AIM incorporates visual and performing arts with rigorous academics to meet the individual learning styles of its students. AIM students 'live it and learn it' through educational immersion, research-based learning strategies, and assistive technology."

AIM is the vision of a team of professional educators, community leaders and concerned parents, all of whom recognized that the Philadelphia region needed to expand the programs and research-to-practice approaches for children with learning differences. AIM was founded in 2006 by Blair and Roberts in conjunction with a founding board of trustees. Since then, AIM's student body has grown from 24 students to approximately 120 students in grades 1 to 12. With a 6:1 student-teacher ratio, AIM is able to provide highly individualized instruction, which is often unattainable in mainstream schools.

AIM is also a center for professional development where educators in the Delaware Valley can acquire and then disseminate the latest research-to-practice applications

in schools throughout the region. AIM has created a research-to-practice consortium in the field of learning disabilities in Philadelphia by welcoming education students from St. Joseph's University, West Chester University, Temple University, Thomas Jefferson University and Eastern College to experience the "live it, learn it" philosophy. AIM has launched research projects with Temple University and Thomas Jefferson University as well as co-teaching arrangements with St. Joseph's University in special education.

While other schools in the region offer children with learning disabilities an education, the Academy incorporates arts-based learning with rigorous academics to meet the individual literacy needs of its students. Unlike other schools, which silo visual and performing arts from other academics, AIM integrates all aspects of the educational experience across the curriculum. This incorporation of research-based programs and arts-based learning across the full curriculum, coupled with individualized instruction from data-informed teachers and devoted co-founders, is what makes the Academy an innovative and unique institution that sets up children with learning differences for lifelong success. The teaching of reading becomes the centerpiece of all learning at AIM and is the framework for tying the arts and research together to meet individual needs. "We teach reading all day long by incorporating vocabulary, morphology, comprehension, and writing into every subject" (Roberts

and Blair 2010).

As Roberts and Blair learned from Smith, learning through the arts is critical to the success of children with language-based learning disabilities. Students at AIM engage in a variety of multi-sensory and multi-media activities that allow them to develop an understanding of their world that they often cannot learn from textbooks and print. Many of these children have struggled to read and write at their previous schools and were frustrated by their inability to achieve success in exercising their unique intellectual capacities. They are now able to demonstrate, in ways other than paper and pencil tests, the depth and breadth of their understanding and reasoning. It is truly amazing to see their confidence soar.

## **The Birth of AIM**

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In the spring of 2004, Blair and Roberts, who are both mothers of children with learning differences, were working at the Institute for Educational Excellence and Entrepreneurship at West Chester University. They were seeking an educational model that would help their children improve their reading, writing and math skills and that would, more importantly, foster the love of learning. The two women met Sally L. Smith, who had been nominated to receive the President's Educator 500 Award for her work at The Lab School of Washington, and began

to take courses there. They toured the classrooms, where they saw enthusiastic teachers and students actively participating in the learning process. According to Blair and Roberts, it was clear that students were learning far more in this setting than in mainstream educational classrooms.

After much time spent on licensing agreements, admissions guidelines, marketing materials and board protocols, AIM received Smith's blessing, and the school was formally launched in 2006. AIM faculty and staff were trained directly by Smith. AIM's commitment to Smith and to children with learning disabilities in the Philadelphia region is to continue her legacy for years to come at AIM. With the help of The Lab School of Washington, AIM was able to develop a business plan that would allow them to work with the initial 24 students with a plan to grow the school to 250 students.

AIM was created with the mission of providing extraordinary educational opportunities to children with learning disabilities, utilizing research-based intervention strategies and a highly tailored, arts-based learning environment, which is college preparatory in scope and sequence. In addition, AIM seeks to develop a center for educational excellence and professional development to disseminate best practices to educators throughout the region by providing access to the latest research-based curriculum, technology and training. The mission and philosophy are based on the belief that each child enrolled

at AIM has the capacity to achieve academic success and to realize individual learning potential. AIM's experienced and committed educators are responsible for seeking out the routes by which each child learns, discovering strengths and interests, and exploring research-based techniques until the student achieves academic progress. In this way, each child is taught through his or her unique style of learning. The current research and practice in learning disabilities provides the promise that each child can learn.

## **The Innovation: "Live It, Learn It"**

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By incorporating visual and performing arts with rigorous academics, AIM caters to the individual learning styles of its students. AIM integrates all aspects of the educational experience across the curriculum, immersing students in rich background knowledge via arts-based learning, problem solving and inferential learning of material typically accessed only through a textbook. At AIM, the arts (drawing, painting, three-dimensional design, woodworking, music, dance and theater) are an integral part of the curriculum. Through the arts, children with learning disabilities can boost their self-confidence while engaging in cognitive processes that support academic learning. The Academic Club Methodology, developed by The Lab School of Washington, employs an arts-based

approach to immerse students into a time period and foster a lifelong love of learning about history. This method helps readers access historical content by removing the barriers of the traditional text-centered approach and by transporting students to a specific time period where they can learn by doing. The Club Methodology is designed to capture the imagination and enthusiasm of the student while targeting specific history, geography, civic, speaking and listening skills.

AIM understands the importance of social and emotional well-being, as well as fine and gross motor development, as they relate to academic success. Thus, AIM integrates these disciplines into their educational model and employs full-time speech and language pathologists, occupational therapists and clinical psychologists to provide therapy to students who require assistance.

AIM is committed to looking at the whole child and monitoring his or her progress. Continually monitoring children on every level allows the AIM team to better serve their student body. AIM can adapt the program to meet each child's needs, and closely measures and monitors those needs and resultant outcomes to make sure every child is moving ahead.

By coupling cutting-edge, evidence-based programs like the Wilson Reading System®; Retrieval, Automaticity, Vocabulary, Engagement with Language, Orthography (RAVE-O); Language Essentials for Teachers of Reading

and Spelling (LETRS); and FastMath and immersing students in a multi-sensory educational process, AIM is able to innovatively engage each child in the “live it, learn it” approach. At AIM, all children actively learn through doing, and this process yields confident and proficient readers who are ready to tackle new concepts and challenges inside and outside of school.

AIM invests significantly in teacher training and professional development and follows the research of Dr. Hollis Scarborough, who suggests that reading must be taught in many ways: decoding, vocabulary, grammar, background knowledge, inferential thinking and much more. AIM teachers are trained in Wilson, LETRS, RAVE-O and many other methodologies, and are certified to teach others the techniques.

The Wilson Reading Method is a research-based multi-sensory structure language program that focuses the AIM faculty on becoming the most highly trained reading teachers in the region. AIM became the seventh Wilson Partner School in the country in 2006. RAVE-O is a comprehensive fluency reading and comprehension intervention program that addresses multiple components of reading. LETRS is a research-based framework developed by Dr. Louisa Moats, Director of Professional Development and Research Initiatives with Sopris West Educational Services. As a Wilson Partner School and educational outreach partner to area universities, AIM has provided teacher training to over 800 area teachers since

its inception. With 1,000 students being positively impacted by every 40 teachers trained in the AIM curriculum, the influence of these 800 teachers is immense.

AIM is in a unique position to create a legacy for literacy in the Greater Philadelphia region and beyond because they recognize that the field must rely on scientific research and measure and monitor children's progress.

## **Measuring the Impact**

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The goal of the Academy In Manayunk is to replicate 2004 efficacy study results of The Lab School of Washington. This longitudinal study examined the academic progress of students with learning disabilities over a five-year period. Of the 514 Lab School participants in this study, 79 percent made a year's progress in a year's time on the Passage Comprehension test of the Woodcock-Johnson Tests of Achievement, third edition, and 67 percent made a year's progress in a year's time on its Applied Problems test.

Students' overall annual yearly progress is measured at AIM through pre- and post-assessment utilizing the Woodcock Johnson Achievement Test. The goal of AIM is to ensure at least one-year growth in the academic areas of need as outlined on each student's Individual Education

Plan (IEP). As part of the requirements of being a special education school, AIM must develop an IEP for each student with specific skill-development goals and measurable outcomes. Students' IEPs are updated annually and include assessment data such as teacher-designed assessments in order to measure outcomes.

In June 2008, 50 of the 63 students enrolled at AIM had complete Woodcock-Johnson testing available. Ninety percent of the participants made a year's progress in a year's time on the Passage Comprehension test of the Woodcock-Johnson Tests, and 85 percent made a year's progress in a year's time on its Applied Problems test. At the end of the 2008–09 school year, with enrollment having almost doubled, the results were 87 percent and 85 percent, respectively.

In addition, each of the research-based curriculum programs and assistive technology software programs utilized at AIM have built-in progress monitoring assessments that are recorded and displayed each time a student completes another lesson or objective of the program.

## **AIM'S Business Model**

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Patrick Bassett, the President of the National Association of Independent Schools, suggests that schools adopt the

following principles: commit to increased enrollment without increasing staff; retire old programs when introducing new ones; right size to ensure that the mission, program and staff are aligned; rethink class size and workload; and set a policy that devotes a third of every fundraising dollar to endowment. According to Bassett, "budgeting ends not with tuition-setting, but with 'quality engineering' a balanced and sustainable budget" (Bassett 2010: 12). Bassett shifts the standard focus of the Value Proposition Formula ( $\text{Value} = \text{Perceived Price}$ ) to reflect a stronger emphasis on results ( $\text{Value} = \text{Perceived Outcomes}$ ). If schools follow Bassett's suggestions, the benefits will outweigh the costs. AIM has integrated these models into both their organizational culture and business plan.

AIM's tuition is \$28,600 per child, which is matched with an additional \$10,000 raised, for a total cost of \$38,600 per child. The total costs include speech and language support, an occupational therapy team, school psychologists and the full complement of classroom teachers and reading specialists.

## **Social Return on Investment**

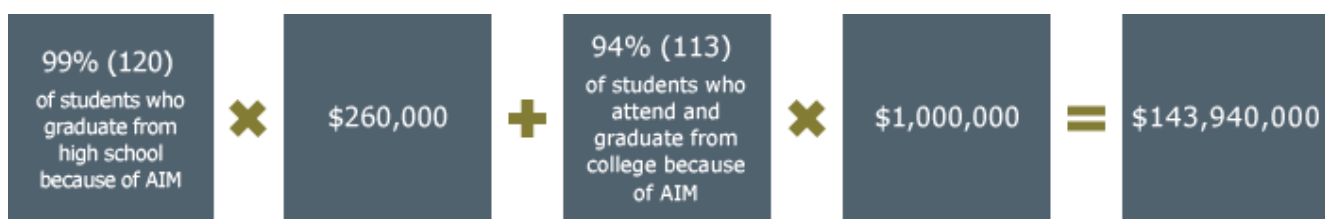
## **Social Return on Investment**

Given that most children with dyslexia have average or high IQs and are amply capable of contributing significantly to society, it is imperative that such learning

differences are identified and corrected early in the educational process. The projected social and economic impact resulting from ensuring that children with learning disabilities graduate from school can be calculated.

Statistical studies have for years shed light on the connection between educational attainment and employment, linking higher levels of education to higher working wages. Every high school dropout, over his or her lifetime, costs the nation approximately \$260,000 (Bainbridge 2006). The average increase in lifetime earnings for a person with a college degree compared to someone with a high school diploma is \$1 million.

AIM educates an average of 120 students per year, of whom 99 percent (120) are expected to graduate and 94 percent (113) are expected to continue on to college, based upon The Lab School of Washington study. The social return on investment (SROI) created by AIM can be calculated by looking at the savings generated from ensuring students graduate from high school along with the increased earning potential for students who graduate from college.<sup>1</sup>



For \$10,000 more than school districts are reimbursed for special education students, AIM returns \$260,000 to

society by ensuring students graduate from high school, and \$1,000,000 by contributing to better rates of college attendance and graduation.

It is important to note that AIM impacts not just the students enrolled, but also students taught by the teachers trained by AIM. As a Wilson Partner School and educational outreach partner to area universities, AIM has provided teacher training to over 800 area teachers since 2006, impacting thousands of children in the Greater Philadelphia region.

AIM has an additional, less obvious downstream social impact by influencing entrepreneurship and entrepreneurial giving. Entrepreneurs are a cornerstone of our society; according to the Small Business Association, entrepreneurs provide around 75 percent of the net new jobs added to the economy, represent 99.7 percent of all employers, and employ 50.1 percent of the private workforce (Worldwidelearn.com 2010). Interestingly, one-third of all entrepreneurs are dyslexic. To an extent, then, supporting children with learning differences can be thought of as supporting budding entrepreneurs, by ensuring they get adequate attention during a crucial time in development.

Entrepreneurs are vital to our society not only because they create and sustain the workforce, but also because they donate generously to the public (Nell, Winfree, and Sherk 2008). Evidence shows that entrepreneurs across

all ranges of salary give more of their annual income to charity than non-entrepreneurs: 1.81 percent vs. 1.0 percent (Nell, Winfree, and Sherk 2008).

Furthermore, research shows that education is the primary recipient of entrepreneurial goodwill (Nell, Winfree, and Sherk 2008). Charitable donations to education comprised the largest portion of entrepreneurial giving—23.8 percent of the total. Investing in innovative educational curricula like that of AIM will not only foster the development of our children but also sustain and expand the future of special education.

To capture this in monetary terms, the following equation can be used:

One-third of dyslexic children in the U.S.	×	1.81% of an average entrepreneur's annual salary	=	Money that society/charity gains annually from
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## Therefore:

One-third x 10 million dyslexic children in the U.S. = 3,333,330 <small>(National Institutes of Health 1994)</small>	×	1.81% x \$111,000 = \$200,910 <small>(simplyhired.com)</small>	=	\$ 6,696,993,303
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## Applied to AIM:

One-third x 120 dyslexic children in the U.S. = 40	×	1.81% x \$111,000 = \$200,910	=	\$ 8,036,400
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In essence, children with learning differences who become entrepreneurs contribute \$6,696,993,303 to society annually and, via AIM, \$8,036,400 annually.

Alternatively, if these children are not identified and properly educated within that window of opportunity, all the negative outcomes associated with learning differences, such as dropping out of high school, will be perpetuated. Dropouts from the class of 2008 alone will cost the nation over \$319 billion in lost wages over their lifetime (Alliance for Excellent Education 2008). More than \$17 billion could have been saved on Medicaid and expenditures for uninsured health care costs had the dropouts from the class of 2006 graduated (Alliance for Excellent Education 2006).

1. ^This calculation does not account for students who would have graduated or attended college as a result of attending public school.

## **Scalability/Policy Implications**

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The innovative curriculum of AIM is replicable in the public sector. The programs, business model and outcomes are already defined. In order to start the replication process, the fundamentals include:

- Screening and evaluating children and focusing on meeting the needs of the unique student body.
- Identifying what teachers are trained in, refining their knowledge base and encouraging continual attendance at evidence-based research teacher

training workshops.

- Having the appropriate resources and materials in place.
- Evaluating everything—monitoring student and teacher progress—and making adjustments as needed.
- Incorporating themes across all subjects.
- Educating parents about learning disabilities.
- Collaborating with local colleges and universities.
- Bringing in problem-based learning pilot reading programs.
- Never ceasing to learn, teach and move forward.

AIM is launching a unique program with St. Joseph's University in Fall 2010 called the Teacher Scholar Program. Recent special education teacher graduates from education schools in the region will have a chance to compete for this highly specialized program that will include a clinical experience rotation at AIM under the supervision of a Master AIM Teacher who is also an adjunct faculty member of St. Joseph's. Twelve graduate credits will be earned for this clinical rotation at AIM, and other online graduate courses will be taken by these Teacher Scholars, who will complete a master's degree in Special Education as part of this program. These well-trained educators will enter schools in our region already certified in the Wilson Reading System and other research-based programs such as LETRS and RAVE-O, with a comprehensive understanding of diagnostic-

prescriptive assessment and progress monitoring techniques, and experience in developing individual education plans for students with reading disabilities.

The missing piece for widespread replication of such a program, however, is broader private foundation and government support and funding. Ultimately, funders and the federal and state governments need to put more emphasis on developing public schools or public-supported schools such as charter schools that can replicate the AIM approach. What is most important is that all of our students in our educational systems are able to graduate with the academic competencies to be productive members of society. All school systems should look to the essential components of the AIM model to ensure that students with learning disabilities achieve the academic skills to graduate and enter college or the workforce.

## **Conclusion**

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AIM is offering specialized, targeted educational strategies unavailable in mainstream education for children with learning differences in the Philadelphia region. Through innovative, hands-on, research-based and integrative academics, AIM is changing the lives of these children and their families. Innovative educational curricula like AIM's not only foster the development of our

children but positively impact our society. Furthermore, AIM is arming teachers with the tools necessary to expand the reach of its innovative curriculum. By forging partnerships with local universities and holding training sessions at the AIM Learning and Research Institute, AIM is able to expand its vision and broaden services, thereby expanding their capacity. The faculty and staff at AIM harbor an undying passion for serving our children and for making literacy a priority for all children, because "every child who cannot read diminishes society" (Blair and Roberts 2010).

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