

Oregon Public Charter School Dissemination Grant-May 1, 2009

Abstract

Baseline Information: The David Douglas Arthur Academy Charter School was opened in the David Douglas school district in September, 2002. It started with 60 students in kindergarten and first grade. The school was founded by Charles and Sharon Arthur through the non-profit organization, Mastery Learning Institute (MLI). Charles and Sharon taught kindergarten and Chris Arnold, who eventually became the kindergarten teacher/school administrator in 2005, taught first grade. After adding one new grade each year, the school had 132 kindergarten through fifth grade students by 2006. Currently, there are 146 students, 42% eligible for free or reduced lunch, 33% minority, and 12 students that receive ELL services.

After operating this school for two years, MLI began work towards replicating this school model in other neighboring school districts. Five additional schools have been established. These schools will serve as partners in this project. Together, all six schools have 34% of the students eligible for free or reduced lunch, 23% minority, and 73 total students receiving ELL services.

Through this two-year project, our goal now is to share what we have learned from our experiences at the Arthur Academy in David Douglas, along with our other five partner schools, in effective instructional practices. Additionally, our goal is to share, with schools and groups considering this process, what we have learned over the years as we established each new Arthur Academy. Staff from each of the six schools will collaborate in the planning and work of this project. Funding requested: \$120,000.

The David Douglas Arthur Academy charter school, as with all other Arthur Academies, is driven by its academic focus and academic instructional model. This model incorporates a way of teaching that defines our charter school option. It is therefore natural that, after seven years of experience, we would want to share information about our successful instructional practices with others.

Our reading program is the most prominent aspect of our instructional programs. This begins in kindergarten. We are currently collaborating with the sponsoring district in the use of School Improvement Funds for a full day kindergarten program. Our written language program that peaks at third and fourth grades is an extension of our language arts process. The beginning reading and written language programs are the focus of our Dissemination Project. However, our interest is not in promoting programs but in the promotion of much broader ideas about teaching practices contained in both programs.

Therefore the **two-year** objectives for this project are...

1. During the **first year** of the project, to prepare training videos and print materials for teaching practices in beginning reading and written language skills for **second-year** training workshops;
2. To prepare and make **first-year** presentations that give an over-view of these programs to create interest and recruit teachers to participate in **second-year** training workshops;
3. As a result of first-year presentations, create interest in starting charters in new locations in the state that will use these teaching practices;
4. During both years, assist groups who are considering or are actually ready to start charters that will implement these teaching practices.

2. Description of Public Charter School and Evidence of Overall School Success

Educational Vision

The mission of Arthur Academy charter school is first to accelerate educational achievement and academic competency of all its students. In attempting to accomplish the broad mission, our school provides a uniquely effective and specialized approach to teaching. As a result we hope to become an effective and innovative model of instruction that can influence teaching practices in other schools.

Arthur Academy is an academically focused school that uses uniquely specialized instructional programs based on Oregon's Direct Instruction theory. These Direct Instruction (DI) programs use an incremental, Mastery Learning approach to teaching the foundational subjects of reading, math and language skills. We complement the DI programs with the Core Knowledge curriculum which guides instruction in history, geography, social sciences and science. The Core Knowledge programs also broaden the instruction in literature, music and art. The Core Knowledge program complements the DI programs by providing more open ended, thematic material. Both instructional models, DI and Core Knowledge, provide a balanced model of schooling--DI with a more direct, sequential approach and Core Knowledge with a more thematic, project, and inquiry approach.

Educational Capacity

As an indication of the strength of our teaching practices, we report the student performance data from all the partner schools in the Mastery Learning Institute, all of which are replications of the David Douglas model. For the 2007-08 school year, five of the six schools averaged 10 percentage points above the state average in percent of students meeting or exceeding the Oregon State OAKS reading and math benchmarks.

In the school year of 2007-08, 655 students attended all six schools, in 29 K-5 classrooms. The Stanford Achievement Test (SAT-10) reading achievement scores showed that 37% of the students, a mix of new and returning students, started the year performing below average. By the end of the year, only 13% scored below average. At the beginning of the year, 20% of the students scored in the top 20th percentile. By the end of the year, 51% scored in the top 20th percentile. A very similar pattern was observed in math as well.

The academic focus begins in the kindergarten. For six years, from 2002 to 2008, we have taught 435 kindergarten children to read. Most of our children improve a full grade level or more above their grade in reading by the end of kindergarten, according to individual Woodcock Reading Mastery tests. The children that have stayed in our schools at least through third grade continued to achieve, 92% continued on with above average or higher achievement and 75% continued on in the top 20th percentile.

Only 48% of all the kindergarteners over this time entered school with average skills in reading readiness. This is well below the 60% that is expected on a national average. By the end of their year in kindergarten, 91% achieved at least average levels, 85% scored above average or higher.

Our literacy program goes beyond beginning reading skills to include a broad range of language skills. For example, on this year's fourth grade state writing test, four of our six schools had an average of 87% of their students that met the standard. This is twice what the state average usually is on this test.

There are good reasons that these kinds of achievement results have been accomplished with these programs. The DI programs used in our schools are some of

the most evidence-based instructional programs available. They all use a careful logical analysis of core learning and component skills combined with a Mastery Learning approach to teaching. The basis of Mastery Learning is that a child's rate of progress is determined by the extent to which he or she masters carefully sequenced lessons and activities that lead to mastery of essential foundational skills and knowledge.

The Mastery Learning approach found in these programs is a part of a long line of educational theory and research that dates as far back as the work of Carleton Washbourne (1922) and Henry Morrison (1926) of the University of Chicago Laboratory School. This work was continued by many others, most notable, John Carroll's (1963) model of school learning and the further work of Benjamin Bloom (1984) and his graduate students, also of the University of Chicago. Most of the mastery learning (ML) features also emerged in the large number of Effective Teaching studies reported by Jerry Brophy, "Teacher's Behavior and Student Achievement", (1986) and Barak Rosenshine, "Advances in Research on Instruction" (1997) as critical features for effectiveness.

The Direct Instruction programs, developed, researched and published by Engelmann, Becker and Carnine, are known for carrying Mastery Learning principles of high-quality instruction to their ultimate, systematic conclusion in curricular materials. These materials alone have been the subject of numerous studies. The two most recent studies involved reviews conducted by the American Institute of Research (AIR) in 1999 and 2005. In these reviews, 22 widely adopted comprehensive elementary school reform teaching models were identified. The Direct Instruction programs were one of

only two programs that received the highest rating for having evidence of positively impacting student achievement in both reviews.

Collectively, the reform models reviewed in the 2005 study served thousands of mostly high-poverty, low-performing schools nationwide. According to these studies, the models that received a high rating, such as the Direct Instruction programs, are considered “research-based” and provide the training to achieve student success. These reports are the most extensive and comprehensive reviews of elementary school reform models ever issued. The DI literacy programs also met the No Child Left Behind criteria for scientifically based evidence and were on the NCLB list of approved programs.

Business and Organizational Management Capacity

We currently have an Executive Director, half-time Assistant Director, a Business Manager and a bookkeeper that provides general supportive service and coordinates the leaders of each school. We serve 6 different districts and are audited annually. Our audits meet accepted accounting standards.

Collaborative and Networking partnerships

Currently, there are five Arthur Academies in the Portland area that will serve as partners in this project. These schools are located in the following districts: Reynolds, Woodburn, Portland, Gresham-Barlow and St. Helens. Each school has a separate charter and is operated by the non-profit organization, Mastery Learning Institute (MLI), MLI intentionally keeps these schools small, one class of 25 students for each grade when completely filled. In the fall of 2008, there were a total of 875 students enrolled in 37 classrooms in all six schools.

Over the years, the David Douglas Arthur Academy has developed a close working relationship with its sponsor, David Douglas School District. Currently it shares in a full-day kindergarten program funded by district School Improvement Fund (SIF) using common evaluation instruments used by the federal Reading First program.

Operating six separate charter schools, each with their own charter and different district sponsor, has required close collaboration and networking. The leaders of each school work in partnership with support from the general service staff. Possibly the closest partnerships with sponsors is in special education services.

It is important that the general services staff and the individual school administrator develop a friendly and cooperative relationship with leadership and contact people from each sponsoring district. We attempt to keep channels of communication open, provide timely reports, and encourage visitation. We make yearly presentations of our annual report to the Board of Directors or each district. Recently, due to high ratings in the state writing tests, we have been invited by the Reynolds school district to share our ideas in teaching writing skills in preparation for this test.

Other indicators of success

Arthur Academy has an active parent organization that conducts various projects that support the school. Parents also participate in an Advisory Committee that reviews all aspects of the school and makes recommendations to the staff and/or managing organization. Parents have continually rated our schools high, 98% satisfied and 87% highly satisfied last year.

3. Description of High Quality Dissemination Project

Needs Assessment A needs assessment survey has been developed and sent to over 200 schools, both charter and district operated. It contained introductory information about our school and the objectives of this dissemination project, along with sample data on our student's academic achievement. The schools receiving this survey were asked to indicate if they were interested in any of the following items.

1. Workshop presentations, held in the area, that feature beginning reading in the kindergarten and beyond into grades 1-5.
2. A video presentation of the workshop with sample materials.
3. Follow-up training in specific areas of interest.

Close to thirty teachers from both charter and district schools have responded to date indicating interest in learning more about these programs.

One school is located in Roseburg, Oregon.

Description of the Overall Dissemination Project

This project is planned for two years. Each year has a distinct objective and set of activities. There are four objectives for the **first year**.

- To develop training videos and print materials and plan training workshops
- To conduct presentations to recruit participants for follow-up training
- To create groups interested in starting new charter schools which would be followed-up with further assistance and training during year two.
- To work out a plan to assist the new charter group in Salem.

The training videos and print materials will focus on kindergarten beginning reading and how it leads to a comprehensive literacy program and a 3rd and 4th grade

writing program in preparation for state testing. Beginning in the fall of 2009, videos of actual lessons will be recorded in these two programs. Representative samples of demonstration lessons in kindergarten beginning reading will be recorded throughout the fall, with some follow-up in January and late spring. A sampling of reading lessons in grades 1-5 will also be recorded to illustrate the progression of the program. The same pattern of recording of writing lessons throughout the 3rd grade and the first half of the 4th grade that culminate in January just before state testing. Some tracking of a few individuals and small groups will be recorded to show individual progress.

It is estimated that up to three hours of recordings in both reading and writing lessons will be taken in the fall and one hour each in January and late spring for kindergarten reading and grade 3 writing. In addition, two hours of recording of reading lessons in grades 1-5 will be made. A total of three hours of 4th grade writing lessons will be made in the fall and winter. This would produce 15 hours of recordings that will be edited into about 6 half hour video segments showing various aspects of the teaching.

Videos showing sample print lesson materials will also be produced to be inserted in to video segments or made separately to demonstrate activities and the sequencing of tasks in critical lessons within the curriculum in more detail. Two half-hour videos will be made of these, one for reading and one for writing. Hard copies of print materials shown in videos will also be prepared.

The Project team members will write a plan that identifies the content and procedures for conducting the training sessions. The team will also prepare and rehearse key aspects of the training workshop during this first year. They will identify how the training will be conducted, how the videos will be used, and prepare all

materials and handouts. The planning process will involve studying programs, meeting with team members, creating material packets and work samples and selecting what classrooms and teachers will be featured in the videos.

During this first year, members of the team will prepare and conduct six introductory, overview presentations in at least three locations in the Portland area and at least three locations in southern Oregon. Contacts, promotions via news media and mailings, travel and lodging in Roseburg, Medford and Bend will be arranged for these events.

These presentations will include background information about Arthur Academy and key ideas about the beginning reading and writing programs. These presentations will be very similar to what we have been doing with parents over the years in starting our schools. The presentations will also include information about how to start a charter school and attempts to identify individuals or groups interested in this pursuit. We will set up avenues for follow-up communications and maintain contact with these individuals.

Each presentation will seek lists of teachers or parents who are interested in signing up for the training workshops being conducted during the second year of the project. Follow-up with those signed up will be made in preparation for workshops. The goal is to conduct three training workshops with at least ten participants throughout the state.

Preparations for the out-of-town presentations will be made for two trips, one for Roseburg and Medford and one for Bend. Plans for travel, presentation, venues, meals, lodging, and number of team members needed will be made.

During the first year, work will be carried out with at least one existing group considering starting a new charter schools in Salem. The group in Salem has a targeted starting date of September, 2010. They are being led by Dr. Mary Scarlato, Associate Professor at Western Oregon University. They will need assistance with the following: setting up an organization, planning an educational program, applying for a charter, recruiting students, locating a facility and preparing a staff. We anticipate providing information and guidance in all of these areas. This will necessitate consulting with them during their charter school start-up and implementation process. It is estimated that at least 40 hours will be spent in this work over the next two years.

The Objectives for the **second year** are:

- To conduct three two-day training workshops, one in the summer and two in the spring with at least 10 participants in each.
- To further work with the Salem group,
- To work with any new groups working on starting a charter school.

The second year of this project will involve making further arrangements for and actually conducting two-day training workshops in the two specific areas of Kindergarten Beginning reading and the 3rd and 4th grade writing programs. The summer workshop will be in Portland and the spring workshops will be in two other locations in the state, hopefully, in Medford and Bend.

Preparations would include arranging for locations, supplies, materials, publicity, recruiting and communicating with participants, lunches and snacks, helping arrange for travel and lodging if necessary, planning schedules and assigning presentation and

other duties to project team members. For the spring workshops, it will be necessary to make and keep contact with local individuals arranging the venues, travel and lodging for team members.

A Project Coordinator will research marketing strategies, plan travel, keep track of contacts and participants, chronicle progress of project and perform other duties involved in coordinating project activities.

4. Viability of Project and Soundness of Planning

Capacity of applicant to succeed

As the first Arthur Academy charter school, the David Douglas school led the way in high student achievement. The first full 3rd grade class to participate in the state testing was in the 2005-06 school year. State OAKS testing results are listed in the following chart as well as results on 4th grade writing and 5th grade science. All students during these years participated in the testing.

David Douglas Arthur Academy Oregon State OAKS Testing Results.

Percent Meets or Exceeds

Grade	2005-06		2006-07			2007-08			
	Reading	Math	Reading	Math	Writing	Reading	Math	Writing	Sci.
3	94%	80%	88%	85%		91%	96%		
4			74%	62%	44%	80%	80%	73%	
5						86%	95%		90%

The Oregon State Writing Tests for 2009 have been completed. The David Douglas school had 87% of it's fourth grade students meet or exceed this standard. The improvements in these tests over the last three years are strong indicators of the effectiveness of the beginning reading programs and 3rd -4th grade writing program.

The state tests measure achievement at the end of the school year. Information about entry performance levels is not tested. In order to measure entry levels, especially in kindergarten, the national standardized test, Stanford Achievement Tests (10th edition) (SAT-10) are given at the beginning and end of each year to all grades. The results of the last three year's in reading for all students enrolled for a full year during the same three years are shown below. Full year enrollments were 117 (k-3), 132 (k-4) and 140 (k-5) respectively. In each year there were close to 40 new students enrolled, 25 of which were kindergarteners. Average return rate for was 87%.

David Douglas Arthur Academy Three Year Reading Test Results on the Stanford Achievement Tests (in % of total student population)

<u>Year</u>	<u>Below Average</u>		<u>Average & higher</u>		<u>Above Average</u>		<u>Top 20th %ile</u>	
	<u>Fall</u>	<u>Spring</u>	<u>Fall</u>	<u>Spring</u>	<u>Fall</u>	<u>Spring</u>	<u>Fall</u>	<u>Spring</u>
2005-06	17%	6%	83%	94%	67%	90%	46%	72%
2006-07	29%	5%	72%	95%	54%	87%	29%	65%
2007-08	27%	8%	73%	92%	55%	86%	26%	69%

Project team

Charles Arthur, Project Director, Founder, Executive Director Mastery Learning Institute,

Experience: 40 years in education as classroom teacher, special education teacher, counselor and founder of schools.

Ryan Hull, Project Assistant Director. Assistant Executive Director Mastery Learning

Institute, Administrator, Woodburn Arthur Academy. Experience: opened one new school, teacher/administrator of two schools

Dennis Tiede, Project Coordinator of New Charters. Business manager MLI

Stephani Brown, Project Written Language Program. Teacher/Administrator, David Douglas Arthur Academy. Experience: 3rd grade teacher for three years, teacher/administrator for one year.

Chris Arnold, Project Beginning Reading Program. Teacher/Administrator, Reynolds Arthur Academy. Experience: teacher/administrator of two schools.

Michael Arthur, Project Media Coordinator. Teacher/Administrator, St. Helens Arthur Academy. Experience: teacher/administrator of two schools, opened two schools

Sonia, Project Coordinator, Experience, School office secretary, teaching assistant.

Dr. Bonnie Grossen, Consultant. MLI Board of Directors. Research scholar and director of non-profit Center for Applied Research in Education (CARE).

The student achievement results provide the best kind of evidence of our success in the areas of focus for this project. We will also utilize teachers who are experienced in teaching project programs in the schools. Within each of the last four years, we have conducted three-week summer training sessions for new teachers. Opening six schools in six years has also provided valuable experience in starting and operating small charter schools. Many of the teacher/administrators actually had the major responsibility of opening schools.

Planning Assessment and Procedures for Monitoring Project Goals

The criteria for judging the success of this project is two pronged. First, the number of trainees participating in our second year workshops; Second, the number of charter schools we assist to establish during the two-year period. Progress towards these ends will be measured by the quality of the training media and printed materials produced during the first year, based on participant's evaluations, and by the amount of

interest shown and participation in the six first-year presentations. Time-lines for task completion are found in the Project Description. Training workshops will be evaluated by participants. Monitoring of improvements in state testing of schools participating in this project will continue.

5. Value of the Dissemination Project

Early intervention in beginning reading has been a well-recognized need in schools, especially within the last two decades. Researchers, Anne E. Cunningham and Keith E. Stanovich, have produced a large body of research that examined the value of early prevention of reading failure. They summarized the results of their studies in a 1998 report, "What Reading Does For the Mind", found in the Spring/Summer issue of the American Educator. The focus of their studies was on the effect of volume of reading in a child's life on over-all intelligence. Children who begin reading early have a distinct advantage in accumulating reading volume, and thus, are more likely to acquire reading skills at a higher level. These researchers found that reading volume accounts for differences in several measures of smartness: growth in reading comprehension at grades three and five, high-school grade average, IQ tests, and a Practical Knowledge test.

In a unique ten-year longitudinal study, the authors found that all three standardized measures of first grade reading ability (decoding, word recognition and comprehension) predicted eleventh-grade reading volume. These first grade reading measures were an even stronger predictor of reading volume than IQ measures. Children who accumulate high levels of reading volume do so mostly because they

learn to read early. This volume of reading, in and by itself, has a powerful affect on future learning and on the shaping of the mind.

We have learned that, if at-risk children who have the highest likelihood of learning problems can start kindergarten in a strong academic program, many of their learning difficulties can be prevented. Just in 2007-08, 55% of all 138 kindergarteners, in all six schools, started the year below average in reading. By the end of the year, only 2% were below average. Giving this kind of accelerated progress in kindergarten provides all children with a huge advantage for success in future grades.

We also, now know, from national reports by Reid Lyon of the National Institute for Child Health and Development (NICHD) and the work of Sally Shaywitz, M.D., Co-director of the Yale Center for the Study of Learning and Attention, and others, that proper early instruction can bring about permanent, measurable changes (MRI brain imaging research) in the activation patterns of the brain to prevent and overcome future reading problems. This all provides strong evidence and cause for providing careful, highly effective instruction in reading in the early grades. All of the Arthur Academies are providing this instruction with outstanding results.

Mastery Learning also shows up in the writings of the distinguished psychologist, Albert Bandura. According to a 2002 survey, Bandura is the most frequently cited living psychologist and the fourth most frequent of all time. In his work on Self-Efficacy: the Exercise of Control (1997), he identifies four sources of Self-Efficacy that are consistent with Mastery Learning theories. Self-Efficacy is defined as the ability to achieve or accomplish results. Perceived self-efficacy is the belief in one's capabilities. Such an outlook produces personal accomplishments and reduces stress. Self-Efficacy is based

on mastery experiences, which are initiated by learning through demonstration and modeling, strengthened by encouragement and reinforcement that result in a student's belief in their capacities. We believe that schools based on Mastery Learning can play a large part in producing these qualities in children. Measures of self-efficacy are strong predictors of school success.

The Reading Mastery program, a component of the full body of Direct Instruction programs, implements the recommendations made by two national reports commissioned by the US Congress, reports by the National Research Council (1998), which resulted in the publication, Preventing Reading Difficulties in Young Children, and the National Reading Panel (2000).

The approach to beginning reading found in this program and supported by these national reports is consistent with a long line of research reports beginning with Jeanne Chall's 1967 book, Learning to Read: The Great Debate, her many later publications, the work of Isabelle Libermann and Donald Shankweiler on phonemic awareness, the work of Kieth Stanovich on causes and consequences of reading difficulties, ("Matthew effects in reading," 1986), Marilyn Adams' 1990 book, Beginning Reading, and Reid Lyon's historic summary of NICHD research on reading "Reading: A Research-Based Approach." This is just to mention a few of the vast amount of publications made within the last 20 years along these lines. It is also important to call attention to Bonnie Grossen's 1997 report, "Thirty Years of Research: What We Now Know About How Children Learn To Read: A synthesis of research on reading from the NIHCHD." Dr. Grossen is a member of the board of directors of Mastery Learning Institute (MLI) and a member of our dissemination project team.

Arthur Academy has found that children can gain a head start in learning to read in kindergarten. Yet, very few schools start this process seriously until first grade. Also, in spite of the research reviews done by AIR and widely publicized (front page Oregonian, 12/14/05), very few schools use a Mastery Learning approach to teaching. There also is still a delay in recognizing and implementing the results of the recent reading commissioned reports. We desire the opportunity to share our experience and knowledge in these teaching practices is applied to the area of beginning reading and 3rd-4th grade written language so that measured results in state testing can improve. Typically, average state pass rates in meeting 4th grade writing standards average around 40%. Arthur Academy's pass rates have been at least 30 percentage points higher.

We believe that the events and products of this project will result in increased awareness of what can be accomplished with beginning readers and young writers and will, therefore, produce increased use of these teaching ideas and practices that will raise student achievement in these areas. We also believe that new charter schools will open that will put to use these teaching practices as a result of this project.

The team sees this project as just a beginning of their work in dissemination. We expect to continue this work beyond the two years of this project. The media and printed materials will continue to be available for disbursement. This work will also increase their expertise and abilities to continue the high quality teaching being done at their schools.