

# 3 Assessment Tests. The Results...

The following tables and graphs illustrate the assessment scores for students in the *Artful Living and Learning* program compared to similar preschool students not participating in the program. Three separate tests are addressed below: the Young Children's Achievement Test (YCAT), Thinking Creatively in

Action and Movement (TCAM), and the Ohio Achievement Assessment Results (OAA). Students' grades from 4th grade were also used as a way to measure effects on academics over time.

When students' pre and post test scores were compared for both the YCAT and TCAM, the differences seen were statistically significant in

every area for children in the program including general information, reading, math, writing, spoken language, and early achievement as well as fluency, originality, and imagination. This means that the differences shown were not due to chance.

Students enrolled in a preschool without the *Artful Living and Learning* program showed significant progress in only four out of the nine areas combined.

*Note: All tests of significance were run at the .05 level*

## Thinking Creatively in Action and Movement (TCAM)

The TCAM (Thinking Creatively in Action and Movement) assesses young children's creativity for fluency, originality and imagination. Students in preschools with the *Artful Living and Learning* program scored higher in all three areas (Figure 3). There was a statistically significant increase in originality for students in the program when compared to those not in the program (Figure 4).

Figure 3  
*Artful Living and Learning Students*  
TCAM Average Pre/Post Test Scores – 2013/14

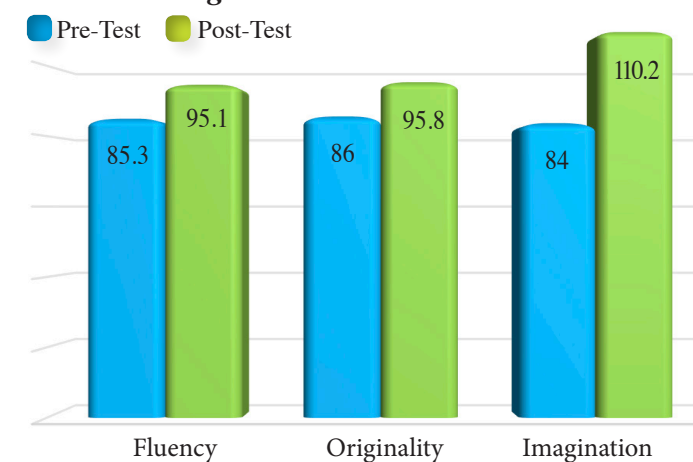


Figure 4  
Difference in TCAM Pre/Post Test Scores – 2013/14

| Non-Program Students |             | Artful Living and Learning Students |
|----------------------|-------------|-------------------------------------|
| UP 6.1%              | Fluency     | UP 11.5%                            |
| UP 1.6%              | Originality | UP 11.5%                            |
| UP 19%               | Imagination | UP 31.2%                            |

## Young Children's Achievement Test (YCAT)

Children in the *Artful Living and Learning* program are assessed using the YCAT (Young Children's Achievement Test) that measures their academic progress. In Figure 1, children in the program show increases in pre and post test scores. When compared with preschool children who are just like them but not enrolled in the program (Figure 2) those children in *Artful Living and Learning* scored higher on all parts of the YCAT, with the most substantial difference seen in spoken language scores.

Figure 1  
*Artful Living and Learning Students*  
YCAT Average Pre/Post Test Scores – 2013/14

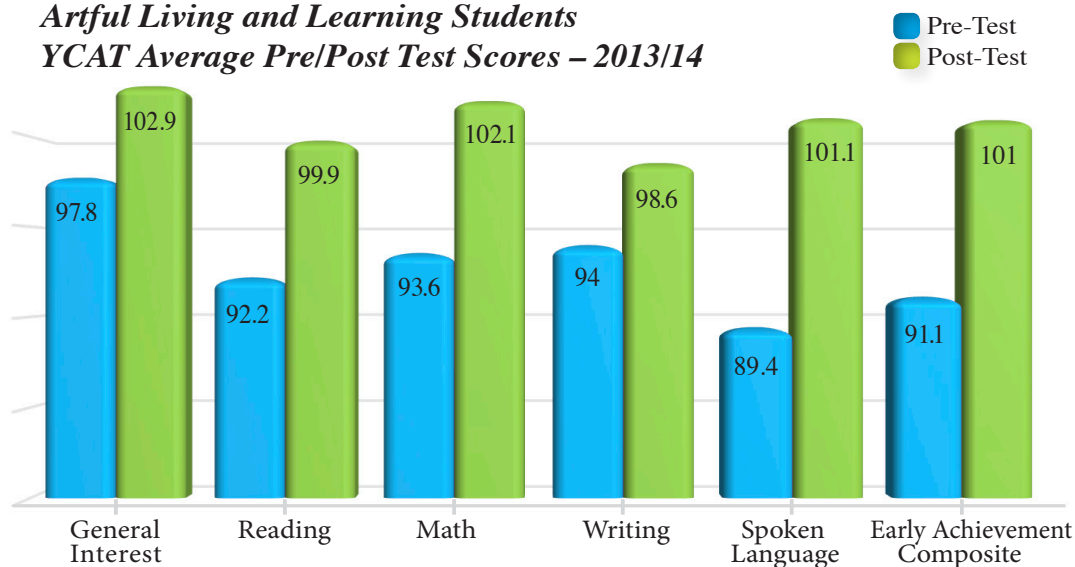


Figure 2  
Difference in YCAT Pre/Post Test Scores – 2013/14

| Non-Program Students |                  | Artful Living and Learning Students |
|----------------------|------------------|-------------------------------------|
| DOWN 0.1%            | General Interest | UP 5.2%                             |
| DOWN 0.5%            | Reading          | UP 8.3%                             |
| UP 2.2%              | Math             | UP 9.1%                             |
| UP 5.6%              | Writing          | UP 4.9%                             |
| UP 3.2%              | Spoken Language  | UP 13.1%                            |







## Ohio Achievement Assessment (OAA)

In assessing the impact of Artful Living and Learning on students' long-term academic achievement, preschool grades were used along with the Ohio Achievement Assessment (OAA) results which look at student proficiency in math and reading. When comparing the Artful Living and Learning students to others not in the program, children in the program did better in reading over time than their counterparts (Figure 5).

Children who were in the Artful Living and Learning program performed better in 4th grade science, social studies, math and language arts than those children who were not in the program. There was a statistically significant difference in their language arts grades (Figure 6).

Figure 5  
**2013 and 2014 OAA Scores – Non-Program Students Compared to Artful Living and Learning Students**

Non-Program Artful Living and Learning Students

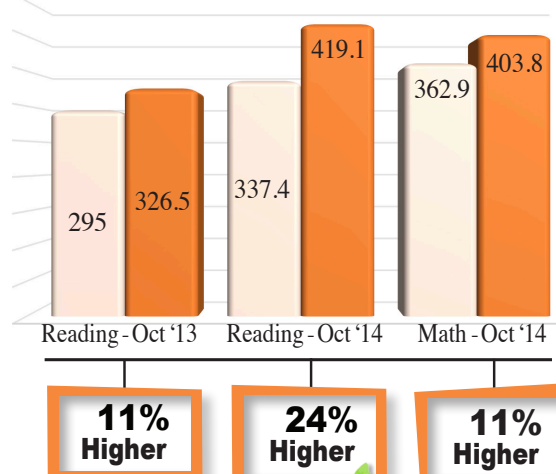
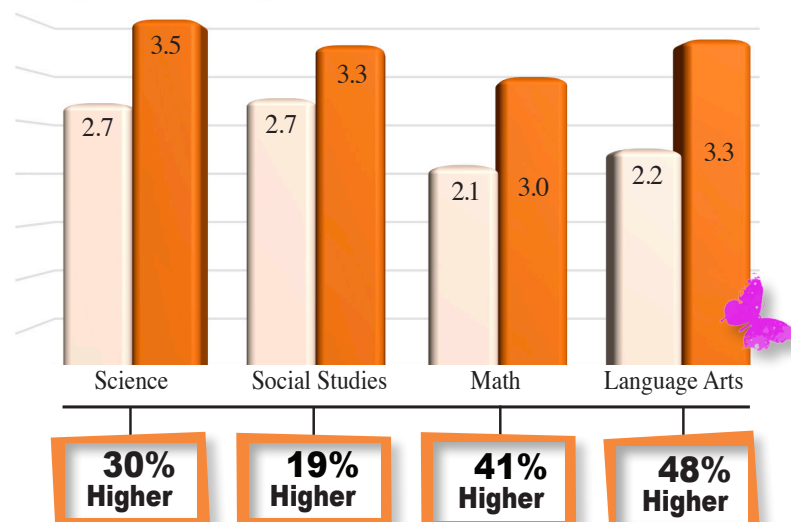
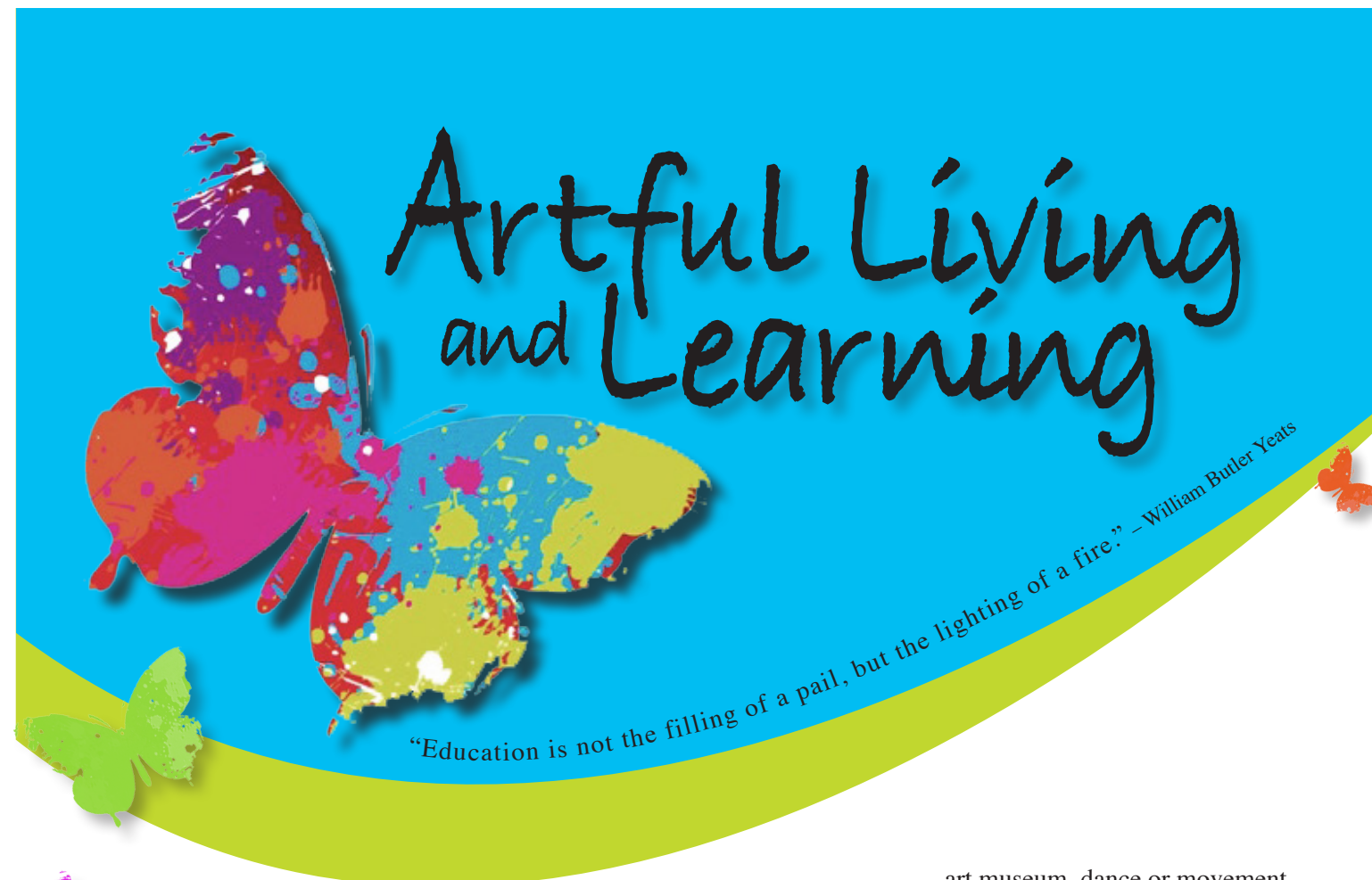


Figure 6  
**Grades for 4<sup>th</sup> Grade Non-Program Students Compared to Artful Living and Learning Students**

Non-Program Artful Living and Learning Students



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*Artful Living and Learning* is an early childhood educational program based on research that shows an association between improved academic achievement and creativity through immersion in the fine arts in preschool classrooms. Founded in 2007, the program promotes the philosophy that an immersion in fine arts in preschool will stimulate creativity and other characteristics that lead to improved academic achievement. Teaching artists come into the preschool classrooms each day from October to May to present arts-integrated, standards-based lessons to students that expand and reinforce the required curriculum and

instruction. Program components include classroom instruction with professionally trained artists who provide in-class instruction that supports the curriculum and state standards. Daily lessons are given over a 25-week period in visual arts, literacy, music, drama or dance as well as a weekly lesson update for parents. Program research and design involves a tracking process that measures student achievement over time.

The *Artful Living and Learning* program improves the school readiness of all children – particularly those who are under served – bringing opportunities that otherwise might not be in reach (symphony orchestra,

art museum, dance or movement, theatre and others). There are many opportunities for the parents of children in the *Artful Living and Learning* program to be involved in their children's education. Research shows that parent involvement improves the experience – academically and socially – for the child in preschool.



### Program Sites:

Canton City School District • JRC Preschool • Massillon City School District • Stark County Board of Developmental Disabilities • Stark County Integrated Preschool program • YWCA Early Childhood Learning Center