

North Dakota AFTERSCHOOL Update

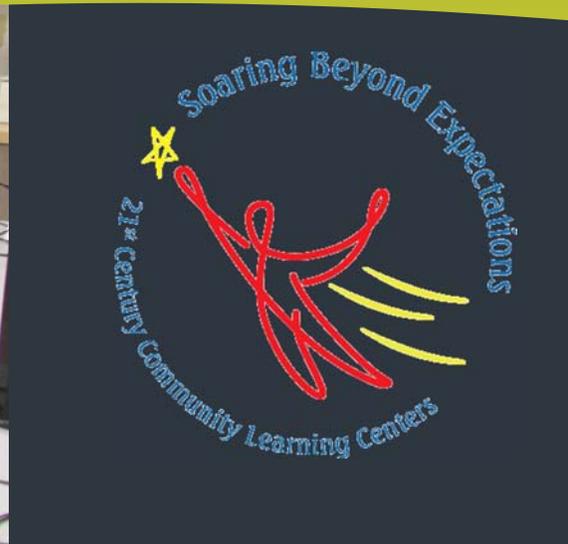
ISSUE 18 JANUARY 2016

This Issue

Defining STEAMP.1

North Dakota State Program
Administrator UpdatesP.4

21st CCLC Upcoming
Conferences.....P.5



Defining STEAM

By: Rebecca Engelman, Arts in Education Director
North Dakota Council on the Arts

When STEM was first introduced as “the next big thing”, the thoughts behind it basically centered on the need within the industry for more workers in STEM fields due to an aging workforce and an increasingly innovative world market. In response to these needs, and to remain competitive in a global marketplace, our leaders are doing everything in their power to push a focus on STEM education.

But in spite of the emphasis on all things STEM in our schools and lucrative job prospects, high school students aren't sticking with STEM. *“Even though the number of jobs in science and engineering is expected to surge in the years to come, close to 60% of the nation's students who begin high school interested in science, technology, engineering, and math, or STEM, change their minds by graduation”* (Morella, 2013).

As teachers and parents, we understand there will always be those students who are naturally drawn to and demonstrate a natural inclination and ability towards certain subject matters such as science, math, language, physical activities, and various forms of creative expression. If STEM literacy is the goal for all students, then we must create pathways so that ALL students, regardless of their inclinations and abilities, can achieve success. And even though science, technology, engineering, and math are great things on which to teach and focus, they cannot be the only pathway to STEM literacy. Adding the ‘A’ to STEM (meaning using art to engage STEM learning, or using art as a valuable perspective or element for STEM learners) to create STEAM allows ALL students, regardless of their interests or abilities, to enter STEM learning from a position of strength.

Josh Sharp

Program Administrator

21st Century Community Learning
Centers

600 E. Boulevard Ave. Dept. 201
Bismarck, ND 58505-0440

Phone: (701) 328-2285

Fax: (701) 328-0203

Email: jesharp@nd.gov

Defining STEAM, continued

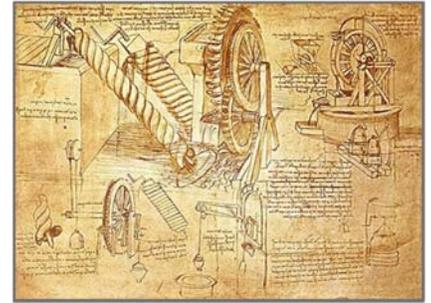
Why STEAM? To begin, one must be clear on what the **A** actually represents. The **A** is more than drawing pictures of a cell and/or singing a song to recall the periodic table. In STEAM, the **A** represents “*how society develops, impacts, is communicated and understood with its attitudes and customs in the past, present and future*” (Yakman, 2008, p.16). I invite you to envision the **A** as a large umbrella that encompasses the fine arts (music, dance, visual arts, performing arts, and media arts), language arts, and liberal and social arts. These are the areas of the curriculum that promote the development of various forms of literacy which include visual, cultural, media, and other 21st century literacies, along with the 21st century skills of creativity, communication, collaboration, and critical thinking. The arts connect us to the world, culture, society, and what it means to be human. STEAM isn’t so much about building a relationship between the arts and STEM, but about reintegrating the two in the classroom. Because there is overlap between the creative process and the scientific method, utilizing arts integration techniques in STEM can benefit the students in learning both artistic and STEM concepts and ultimately increase creativity. The arts also provide an arena where the seven intelligences—the visual/spatial, the kinesthetic, the musical/rhythmic, the interpersonal and intrapersonal, the natural, the mathematical/logical, and the verbal linguistic—are all recognized and addressed. Elliot Eisner, former professor of Art and Education at the Stanford Graduate School of Education and one of the leading academic minds in the United States, championed the arts as,

“Developing different forms of thinking, including an ability to see qualitative relationships within and among texts, an understanding that form and content are inextricably linked, an understanding that how something is expressed is only a part of what is meant, and the awareness that not everything knowable can be expressed through written language” (Sanders & Albers, 2010, p. 6).

The arts are the perfect vehicle for finding the “elegant fit” necessary for **authentic** and **meaningful** integration to occur. The strategies of arts integration are educationally powerful because they are grounded in deep connections between the arts and cognition and between learning, social, and emotional development (Rabkin & Redmond, 2004, p. 152). The **A** is the cord that binds the heart to mind, the thread that weaves curriculum together, the glue that binds knowledge and application. It is the grease that keeps the wheels moving. With all of the research currently available, it is clear that positioning the arts as a side-note and a “maybe” to STEM benefits no one. Adding the **A** to STEM gives educators and others permission to harness its power and use it as a tool for creating students who are not only STEM literate, but also **GLOBAL CITIZENS**.

Defining STEAM, continued

If we have learned anything at all from the long history of education it is this: “*Our education system was designed by powerful and pervasive currents reflecting the intellectual, economic, and social trends of a burgeoning industrial economy*” and “*further shaped by more immediate influences – from the “science” of intelligence and inequities of state school funding formulas, to federal accountability*” (Rabkin & Redmond, 2004, p. 148). As social and economic trends change, and as methods of research on the brain and learning improve, we realize that “the next big thing” must adapt to best meet the needs of those we serve, our students. When we know better, we simply do better. Adding the **A** to STEM allows for a fluid progression of learning and understanding to occur and hopefully leads us to the day when acronyms are no longer necessary...to a day when teachers skillfully apply strategies that engage all minds and schools become joyful places of learning for **ALL** students.



References

- www.usnews.com/news/blogs/stem-education/2013/01/31/report-many-high-schoolers-giving-up-on-stem
- https://secure.ncte.org/library/NCTEFiles/Resources/Books/Sample/32142Intro_x.pdf
- www.iteea.org/Conference/PATT/PATT19/Yakmanfinal19.pdf

Rabkin, N., & Redmond, R. (2004). *Putting the arts in the picture: Reframing education in the 21st century*. Chicago: Center for Arts Policy at Columbia College Chicago.

Resources

- <http://arts.unco.edu/ciae/institute/documents/articles/hopkins-%20neuroeducation.pdf>
- <http://arts.gov/sites/default/files/how-creativity-works-in-the-brain-report.pdf>
- www.acola.org.au/PDF/SAF02Consultants/Consultant%20Report%20-%20Korea.pdf
- www.salzburgglobal.org/fileadmin/user_upload/Documents/2010-2019/2015/Session_547/SalzburgGlobal_Report_547_FINAL_lo_res.pdf

Lee, C., Ian, J., & Andres, C. (2011). *Literacy Is NOT enough: 21st century fluencies for the digital age* (The 21st Century Fluency Series). Newberry Park, CA: Corwin. Paterson, J. (2007). *Teaching Literacy across the curriculum*. National Middle School Association.

North Dakota State Program Administrator Updates

Every Student Succeeds Act (ESSA)

ESSA has been signed into law and will go into effect beginning with the 2017-2018 school year. ESSA kept 21st CCLC under Title IV which is now called Title IV – 21st CCLC Schools. This has caused some confusion in regard to where 21st CCLC is located. 21st CCLC is still Title IV Part B. ESSA just renamed Title IV to Title IV – 21st CCLC Schools. ESSA changed 21st CCLC by adding allowable activities and determining eligible entities. The North Dakota Department of Public Instruction (NDDPI) will be asking for guidance on the ability to narrow the number of allowable activities.

New Activities

- 21st CCLC funds can be used during the school day as long as they are supplemental and do not supplant. The sub-grantee must also increase their school year by a minimum of 300 hours.
- STEM – Most 21st CCLC sub-grantees offer STEM activities. It is now listed as an allowable activity.
- Credit Recovery – 21st CCLC funds can be used to assist students with credit recovery.

Eligible Entities

ESSA removes the 40% and/or operating Title I Schoolwide as determining if an entity is eligible. The new requirements are as follows, “students who primarily attend schools:

- Implementing comprehensive support and improvement activities or targeted support and improvement activities or other schools determined by the local educational agency to be in need of intervention and support,
- Enroll students who may be at risk for academic failure, dropping out of school, involvement in criminal or delinquent activities, or who lack strong positive role models,
- Families of these students.”

The U.S. Department of Education (USDE) has told states who are running competitions prior to the implementation of ESSA to run their competitions in compliance with No Child Left Behind (NCLB).

21st CCLC Grant Competition

The NDDPI is currently working on an RFP for a 21st CCLC competition. All competition information will be posted on the NDDPI [21st CCLC website](#). The USDE is hosting a WebEx for state coordinators on February 10, 2016, in regard to RFPs.

21st CCLC Upcoming Conferences

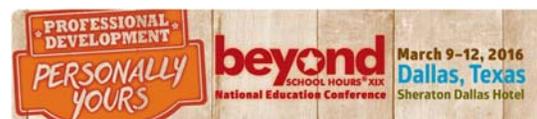
North Dakota Afterschool Partnerships-Bismarck, ND February 23, 2016

Join us to create a powerful Network that engages champions across the state and fosters partnerships and policies to develop, support and sustain high-quality afterschool and expanded learning opportunities for school-aged youth. Dr. Terry Peterson, leader and advocate for education reform and improvement, will be the keynote speaker. Topics will include: Visions for education and Afterschool's role, STEM, workforce development, evolution of a Network, 21st Century Skills for success and Afterschool through a child's eyes. For more information, please visit www.ndseec.com/education/dept/dept.php?sectionid=100.



National Education Conference Beyond School Hours XIX-Dallas, TX March 9-12, 2016

Our conference provides vital professional development opportunities for educators and leaders working with students of all ages, across the learning day, all across America. They get the latest tools and insights for improving education for young people – while they refresh, renew, and have fun connecting with peers and experts. For more information, please visit wwwFOUNDATIONSINC.org/beyond-school-hours-xix.



2016 National Afterschool Association Convention-Orlando, FL March 20-23, 2016

Join NAA in the Sunshine State at the 27th annual convention at the beautiful Gaylord Palms Resort & Convention Center in the Greater Orlando area. Gathered will be the brightest, most passionate, and talented minds in the afterschool community. Afterschool professionals are superheroes that go above and beyond the call of duty. For more information, go to <http://naaweb.org/convention>.



North Dakota Collaborative Spring Conference-Grand Forks, ND April 22-23, 2016

The North Dakota Council of Teachers of Mathematics, the North Dakota Science Teachers Association, the North Dakota Department of Public Instruction, the North Dakota STEM Network, and the UND STEM Initiative are joining forces to present a joint instructional conference for YOU and all teachers in the state and beyond!

