NAME OF COMPONENT: AIA Triangle

CONTACT: Tanja Bean

COMPONENT SIZE: 500-1,000 members

PROGRAM TITLE: ScaleUP

CORE SERVICE: Public Outreach

PROVIDE A BRIEF DESCRIPTION OF THE PROGRAM:
ScaleUP is an interactive program developed to increase public awareness of design and disseminate knowledge about the built environment to children and young adults. The program provides a toolkit that guides students through the design and eventual construction of a small structure utilizing two identical kits of PVC parts of different scales, one miniature and one full size. By collaborating with educators, community groups, and allied organizations, it also provides leadership opportunities for our members within their communities in order to make a difference in young people’s lives, all of which lead to increasing understanding of the architectural profession.

HOW DOES YOUR PROGRAM ADDRESS THE CORE MEMBER SERVICE?
The ScaleUP program addresses the Public Awareness core member service. The program promotes public awareness of the value of design and the role of architects by collaborating with educators, community groups, and allied organizations to provide leadership opportunities for our members within their communities in order to make a difference in young people’s lives.

The success of the program is evident by the number of requests from the local communities and the resulting collaborations that have resulted since its inception in 2016. Requests for bringing the program into schools and afterschool programs has been continuous, initially locally, and then across and from outside the state. The ScaleUP program has achieved ongoing awareness of the AIA within our local education system and the public, and has been the genesis of relationships with educators, program directors, allied organizations, and community leaders.

Furthermore, ScaleUP has given AIA a voice in shaping and setting requirements for education, because the core idea of designing and full-scale building is so universal that the program blends seamlessly into educator curriculums. Teachers have incorporated ScaleUP in their lesson plans and pair the kits with lessons on fractions, physics, drafting, science, team building, and more.

While ScaleUP was originally designed for classrooms, it has been successful used in conjunction with local STEM programs, community college outreaches, and even with an anti-gang initiative. It was also discovered that staging events at community art festivals provided a
way for the community and local educators to become aware of ScaleUP and the fact that it was available for them to incorporate into classrooms settings.

**WHO IS THE INTENDED AUDIENCE (include size and demographic)**
One of the advantages of the ScaleUP program is its flexibility and scalability to audiences of different sizes and ages. Different activity programs have been developed for various age groups, kindergarten through 12th grade. It can be scaled to large community events with hundreds of kids or used in a more intimate group setting or classroom (up to 30 kids). The program is also scalable in the sense that as the program grows, more kits can be purchased to accommodate the growing interest.


Additionally, by partnering with local organizations, ScaleUP is reaching kids who otherwise may not have the opportunity to explore architecture. Once such organization is Neighbor to Neighbor (www.n2noutreach.org), a grassroots initiative that emerged out of a pursuit to inspire and support the community by offering programs ranging from enrichment classes, academics, mentoring and job opportunities, to athletics and faith empowerment.

**WHAT IS THE BUDGET? (include all costs including sponsors, grants, and other outside funding)**
The kits are created from off-the-shelf materials that you can easily purchase from a home improvement store (such as Lowe's), Amazon, and an online furniture store called FormUFit. The pipes must be cut down.

- **KIT COMPONENTS**
  - **Mini Kits**
    - (40) pipe lengths
    - (16) mini-connector lengths
    - (20) T fittings
    - (20) 90° fittings
    - (10) 45° fittings
    - (20) straight coupler fittings
    - six mini-scale sets of small PVC pipes in durable containers = rough cost is $35 x 6 = $210 (multiple small kits allow an entire classroom to build while they take turns with the large kits)
  - **Full Size Kits**
    - (40) pipe lengths
• (20) mini-connector lengths
• (25) T fittings
• (25) 90° fittings
• (25) 45° fittings
• (25) straight coupler fittings

• START UP COST / BUDGET
  o Pipes, Fittings & Containers = $1,560
  o Tools for creating kits @ workshop = $100 (or some could be borrowed)
  o Printed Materials and Branding = $500
  o It wouldn’t hurt to throw in some pizza and beer for the volunteers who offer to cut down the pipes!

• OUTSIDE FUNDING:
  We were awarded an AIA College of Fellows Emerging Professionals grant to buy the initial materials we needed to launch the program. See article ScaleUP featured in the January 2017 issue of AIA College of Fellows Newsletter. Later, we secured an Armstrong Foundation Grant to create program in partnership with Neighbor2Neighbor, an anti-gang initiative in South Raleigh. The ScaleUP workshop was served only as the introductory session for that program but it gave the ScaleUP team experience working students of variety of ages.

  Additionally, AIA Triangle has used in-kind donations for printed materials and other task forces have partnered with the outreach and loan supplies, materials and resources as possible. AIA North Carolina’s community outreach initiative, Activate Triangle, provided further funding to expand the program. The AIANC grant also helped pay for the introductory video.

HOW (list the steps or process to implement this program, be as specific as possible)
One of the keys to success of the program is to identify a champion, or group of people who will be responsible for coordinating and promoting the program. Once a champion is identified, they will need to figure out the local target audience to reach or attend a community event where the ScaleUP program can be visible. The champion is responsible for the location of the ScaleUP kits and for coordinating volunteers to facilitate the workshops.

Once a workshop is scheduled, the volunteers are responsible for transportation of the ScaleUP kits to the location. It is important that the champion continues to promote the program and respond to requests for architects in classrooms.

• WORKSHOP SAMPLE KIT INCLUDES:
  1. brief presentations about what architects do, written for different ages
attached sample worksheet)

2. a scale figure and model building kits of 1/2” PVC pipe
3. graph paper for drawing for plans and elevations
4. a kit of AIA Red 21/2" FORMUFIT PVC pipe for building the “life-size” structures

• SAMPLE WORKSHOP OVERVIEW:
  1. Design / Build a Model
  2. Draw / Make Construction Documents – Build Full Size
  3. Walk Through the Structure

• SAMPLE WORKSHOP STEPS:
  1. Participants are broken into teams and given a kit to create a model of a structure a scale figure. The purpose of the structure can/should relate to something they identify with or that relates to their curriculum.
  2. Architect/facilitators show examples of construction documents and then ask participants to draw/sketch the model in elevation & plan on graph paper.
     • ALTERNATIVE - you may also require sections, axons, computer models, or written directions/specifications for assembly based on age or other skills teachers want to be combined into the learning session.
  3. Team Members are assigned roles such as architect, detailer, contractor
     • ALTERNATIVE - if there are multiple designs within a teams then the best ideas from each can be combined into one design.
  4. Using the “construction documents” created the teams must build a life-size version of the design
     • ALTERNATIVE - for older groups try covering the model with a towel and requiring the life size structures be built from the construction documents – or require other teams to build each other’s designs based on construction documents.
  5. Consider covering sections of the structure with canvas/tarp, if it is to be left up or used for other activities
  6. Allow teams to occupy the structure, take photos
     • ALTERNATIVE - create a #hashtag for your workshop to share images of the model structures created and then the students in the full-size versions

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