

Project: Destination ImagiNation  
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Project Website: <http://www.idodi.org>

Organizations & Staff: Illinois Destination ImagiNation, Inc.

Project Categories: Programs

How to Reach Primary Target: We provide hands-on training and mentoring as well as support through internet webinar sessions.

How to Reach Secondary Target: The youth workers trained by us interact with Elementary youth at least weekly during the fall and winter months to prepare for March showcase of their work.

General Demographics: This program is suitable for both genders, urban, suburban and rural settings, and varied income levels, including the underserved. The limiting factor is youth workers or other informal educators to provide the interaction with the students.

Project Dates: 8/11/2008 - 3/14/2008

Funders

Funders:

Evaluation and Field Testing

Evaluators: Illinois Destination ImagiNation, Inc.  
148 W Lincoln Ave  
Libertyville, IL 60048  
<http://www.illinoisdestinationimagination.org>

Evaluation Strategy: The international Destination ImagiNation, Inc. organization provides scoring rubrics for each of 5 curriculum-based Challenges. The solution created by each team of students is appraised according to the rubric. Teams are able to continue to showcase their work by advancing to state-wide and global levels of competition.

Project Descriptions

Summary: Destination ImagiNation, Inc. (DII) is dedicated to teaching students teamwork, creativity and problem solving techniques as a way to develop innovation skills. Illinois Destination ImagiNation (ILDI) is a licensed Affiliate of DII. ILDI and DII annually offer 5 engaging curriculum-based Challenges to students from Kindergarten to University level. Students choose which Challenge intrigues their interests. Three of these challenges include significant emphasis on Science, Technology, Engineering and Math, such as building

structures, building vehicles or focus on other science such as physics or biology. All solutions must include proof of research and all ideas and workmanship must come from the students. Each team presents their solution at a showcase tournament to Appraisers who provide positive feedback. Teams of 2 to 7 students spend 6 to 10 weeks crafting a solution to the challenge they select. Their solution includes the technical STEM components within an entertaining presentation. This mimics real life where ideas must be persuaded to become viable innovations. In addition, teams develop "thinking on their feet skills" in the practice of 10 minute Instant Challenges that test diverse skills in applying technical knowledge and communication effectiveness. The complete information about our organization's history, aims and global reach is on [www.destinationimagination.org](http://www.destinationimagination.org). In the fall after school meetings, teens will use instant challenges as experiments that require them to experiment with common materials to build models that will span gaps, hold weight or focus on the different properties of shapes and materials. All instant challenges are appraised based on a pre-explained set of criteria and include teamwork and creative problem solving as part of the rubric. Instructors will debrief exercises with questions that ask students what went well, what didn't work, how could it have been better etc. Often teens will redo challenges to experiment with materials and ideas. These experiments will comprise more than one-half of each meeting. Each teen will be given a spiral notebook in order to record their conclusions. Trained instructors will teach ten tools for creative problem solving. Five tools will address how to generate ideas and five tools will teach how to focus ideas to a final selection. Each explanation should take no more than 15 minutes with a 20 minute activity for students to apply each tool. Tool instruction will be spread throughout the session with no more than two tools taught per session. Students will then be given 20 minutes to apply these tools. Teens will be asked to record notes on these tools in their spirals. In winter, teams will select a DII central challenge and will spend 8 to 10 weeks developing their solution. They will plan, create, test, and refine a device, vehicle or weight bearing structure. They will write a script, assign acting parts, and create costumes and props in which to embed their technical solution. They will be responsible for all project management including creation of timelines, achievement of consensus, and dividing of tasks. Each skit also requires research into a historical event or geographic place and an integration of this information into the skit. A detailed, predetermined appraisal rubric is shared with the team at the start of the project. Teams need to utilize the divergent skill sets of the students to the team's advantage. The students are required to record all expenditures and to stay within a modest budget and time limit. All of these 21st Century skills represent the project management skills and activities students will need in college assignments and future jobs. This

presentation for the National Conference of Out of School Time will outline the process to disseminate this globally successful formula for enhancing STEM training to students of all ages in fun and engaging manner. ILDI is an all volunteer organization, so this presentation will outline how you can follow the simple process to bring this program to your students.

Impact:

Both the youth workers and the students regenerate a love of learning, deepen their ability to function effectively as a team, and improve their mastery of STEM principles by applying them within the framework of fun and engaging open-ended Challenges. Students and youth workers develop high tolerance to tackle challenges in their lives by developing fluency to break down the DII challenges into smaller, more manageable components and building their confidence. The consistent focus on teamwork and gaining value from the input from every team member also has dramatic positive impact on both participants and adults involved.

Lessons:

Many types of STEM programming have defined experiments where the answers to the activity are pre-determined. The students often become disengaged due to lack of required thinking on their part. Science is reduced to a recipe. Destination ImagiNation encourages divergent thinking, teamwork and, most importantly, an “I can do it” attitude within students who learn these skills by doing simple to complex open-ended Challenges. There is no “right answer” to these Challenges and divergent thinking is rewarded. A rule within DI is “if it doesn’t say you can’t, then you can”. Students quickly learn to listen closely to the rules and decipher the scoring rubric so that they can take risks to maximize the strengths within their team. Effective scientists collaborate across disciplines and focus on understanding the problem they are trying to solve. Teamwork is critical to success, however, students traditionally have limited time to work within a team in a self-directed manner for an extended period. Unique aspects of Destination ImagiNation include teamwork focus and the performance of the technical solution integrated within an entertaining presentation to polish effective communication skills. In the real world, innovations dominate market share. Destination ImagiNation provides a framework where students can develop innovative solutions and practice key creativity and innovation skills.