

# Young Makers

## 2015 INITIAL REPORT

### EXECUTIVE SUMMARY

The research and evaluation department at the Science Museum of Minnesota, in partnership with Maker Ed, developed and conducted an evaluation of the Young Makers program for the Spring 2015 season. The goals for this study were to document the experience of youth and their mentors in these diverse clubs, from the learning of technical skills to the formation and support of personal identity, and to understand in what ways Maker Ed can best support the Young Makers Program.

The Young Makers program is intentionally designed to welcome any group that works together to make things and work on projects consistently over the 12-16 session, which leads to a lot of variety in the way the groups are structured. Many are organized through a parent organization, ranging from the formal (a class at school) to the informal (a youth serving organization like a computer club). The other major foundations for the clubs are families, either one family alone or a group of families working together.

There is also a lot of variety to who the mentors and youth are and what drew them to the clubs. Mentors have a range of experiences working with youth of varying ages, mostly school-aged kids, in a variety of settings. In general, they share an interest in making and want to provide youth with opportunities to make. Most are connected in some way to the making community. Youth are also similarly motivated; most want to make things and are connected to their clubs through friends, family, or the previously mentioned parent organizations.

Participating in the Young Makers program appears to influence both youth and mentors personal identities as makers. While many identified as a maker before the season, every youth, and close to every mentor, identified as a maker after the 2015 season. Youth reported that they enjoy being a part of their Young Makers club because they get to learn new things, use tools and materials they haven't used before, and build connections to the larger making community. Mentors like being a part of their club because they get to provide youth with opportunities to make.

When it comes to solving problems, most youth turn to the mentors for help. Having an adult present to help develop problem-solving techniques may be one of the key roles mentors play in the clubs. Most youth have a positive attitude towards making mistakes with many viewing mistakes as part of the making process or the best way to learn. Of note, mentors noted youth needed more assistance problem solving than they anticipated, but less support with social skills like collaboration or presentation. As for the support that mentors needed, they listed training in technical skills and finding ways to connect those back to projects and suggestions for facilitating learning with youth.

The data collected suggest that the Young Maker clubs foster an environment where youth are comfortable learning new things, making mistakes, and developing important life skills through the support of dedicated mentors.