Maker Corps

2014 EVALUATION REPORT EXECUTIVE SUMMARY

Al Onkka and Alice Anderson Science Museum of Minnesota Department of Evaluation and Research in Learning November 2014

During its second year of programming, the Maker Education Initiative (Maker Ed) has implemented a nationwide service program that succeeds in serving its members, its organizations, and their audiences. In 2014, 99 Maker Corps Members (MCMs) served approximately 53,100 audience members at 34 Host Sites over the course of the summer.

Maker Corps Host Sites are U.S. organizations including science centers, children's museums, schools, libraries, makerspaces, and other youth-serving agencies that provide day-to-day supervision over at least two MCMs employed at their site during the summer. Host Sites gain instant capacity for developing and delivering highly desirable maker programming in a way that is relevant for their organizations and audiences. Along the way, Host Sites begin to develop long-term capacity to further integrate these programs into their organizations and with their staff.

MCMs are passionate makers or aspiring makers who serve as peer mentors and bring their own enthusiasm and knowledge to each Host Site. The majority are college students, young professionals, or teachers seeking to learn and expand their experiences. MCMs are developing important job skills while learning about making, facilitation, education, and themselves.



Our role as external evaluators is to provide Maker Ed and its stakeholders with an outside perspective on two questions. First: How does Maker Corps impact the MCMs and Host Sites that participate and the audiences they serve? Second: In what ways can the Maker Corps program improve to better serve these participants and their audiences? This report is an executive summary of our full report, in which we present a complete summary of the findings from surveys, interviews, and case studies during the 2014 Maker Corps program. All of the Host Sites and MCMs participated in surveys, but three sites were selected as Case Study sites. At those sites, the REM Learning Center in Miami, Forida, the Science Museum of Minnesota in St. Paul, Minnesota and the Millvale Community Library in Millvale, Pennsylvania, we interviewed their MCMs and supervisors several times and visited their program. In this summary, we focus on describing the program and its impacts through the eyes of its participants.

"With the support of a strong community, I learned to embrace my power as a maker and leader in our community."

- MCM



GOALS AND IMPACT

MCMs had a range of important impacts on their audiences.

Through their work, some MCMs saw their audience develop life skills such as resilience, confidence, and creativity. Some MCMs described helping their audience develop a new interest, or better pursue one that they already had. Many MCMs described how much fun they saw their audience having.

Host Sites said that MCMs introduced their audiences to making, and described how the maker mentality gave their audiences new types of experiences at the organization. MCMs produced enjoyment and enthusiasm in their audiences during the programs they delivered. They helped the organizations reach new audiences. A number of Host Sites appreciated that the MCMs became mentors for their audience members.



Maker Ed defined 12 goals for MCMs and six goals for Host Sites. At the beginning of their service, three quarters or more of the MCMs said that each goal was fairly or very important to them. At the end of their service, over half of MCMs felt that they had "mostly" or "completely" achieved 10 of the 12. Likewise, over half of the Host Sites thought they completely or mostly achieved four of the six goals that Maker Ed identified for them.

Throughout our evaluation, MCMs had opportunities to elaborate on their own goals and achievements during the program. We synthesized their reflections and Maker Ed's goals into five broad categories. In our full report, we go into detail about how MCMs achieved these goals.

- Developing personally and professionally
- Becoming a better maker
- Connecting and networking in the maker community
- Engaging the audience in making activities
- Helping the audience gain a maker mindset

Host Sites saw important impacts on their own organization.

Overall, most Host Sites saw Maker Corps as an effective way to reach a few common goals. With some variation, they all wanted to:

- Meet a current need for developing and delivering maker programming
- Increase their organization's capacity for maker programming
- Connect and network with others in the maker community



"I enabled the girls trom my underprivileged community to look beyond their horizons and make. Before the summer camp program, the girls were really shy but after they were more confident in their skills."

- MCM

Science Museum of Minnesota

One of the biggest impacts of the Maker Corps program on Host Sites is the instant capacity they gain via two new staff members, trained to develop and deliver programs. Throughout the evaluation, Host Sites expressed their need and desire to do maker programming; the Maker Corps program provides a way to get started right away.

Host Sites also saw other important impacts during the program, such as:

- Building sustainability for maker programs
- Changing how the organization thinks about their programming
- · Learning something new about what their audience likes or wants at their organization
- Providing professional development for their staff
- Opened doors to new sources of funding



MCMs developed as makers and educators during their service.

MCMs described how they planned to apply what they learned during Maker Corps to their life, schooling, or career. It was very clear from the responses that many MCMs intend to continue their role as a leader of maker activities—and the movement in general—across the spectrum of formal and informal learning environments. Many talked about using what they learned as they moved into a formal education setting and others planned to continue working at their current program.

2/3

The proportion of Host Sites that are hiring an MCM

Host Sites are hiring many MCMs.

Two thirds of the Host Sites said that they have hired or plan to hire one or more of their MCMs from the summer. One third of the 2014 MCMs are being hired by Host Sites after their Maker Corps service is finished.

"As a tuture teacher, I am extremely excited to show students how to take charge of their education...Most careers involve making in some way, and I hope I can bring what I've learned into my classroom to show students how making applies to language arts."

- MCM

Science Museum of Minnesota

DIVERSITY, RELEVANCE, AND COMMUNITY

After looking across all the responses, stories, and data, we identified three themes that helped to tell the story of Maker Corps' impact on its participants and their audiences:

- Diversity
- Relevance
- Community

One of the three primary goals for Maker Corps is to diversify and expand the network of makers, mentors, and community leaders. Overall, we found that Maker Corps attracts a diverse range of participants and organizations. However, even though the Host Sites and MCMs have diverse experience, contexts, and needs, they show similar goals. The Maker Corps program succeeds in being relevant to these diverse participants and helps them to achieve their various goals. Finally, Maker Corps is a community. Communities develop at each site as MCMs and Host Site leaders figure out how to apply the Maker Corps program in their own context. Nationally, Maker Ed is creating a community by connecting organizations and people around common goals and resources.

MCM Demographics

The demographics of the 2014 MCMs closely resembled US Census data (2012) with one large difference. MCMs are much more likely to identify as two or more races (28% of MCMs, 2% of US population). This is impressive given recent criticisms of the diversity of the Maker Movement and a testament to Maker Ed's commitment to this goal.

RECOMMENDATION

Maximizing the benefits of national community is an important priority for the growth and improvement of the Maker Corps program. In our evaluation, while we found that Host Sites are using MCMs to develop and deliver innovative making activities as well as find creative ways to sustain this programming, this knowledge remains mostly on-site. To continue to build this movement and harness the momentum that the Maker Corps program has generated we recommend that with the help of its supporters, Maker Ed find ways to further support the development of a national network of maker educators and youth-serving organizations.



"[Our make program] was exceptionally well-received and would not have been possible without the extra help of Maker Corps and the thoughtful thinking and hands-on experience they gained throughout the summer."

Host Site

Science Museum of Minnesota