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Community Ambassadors in Science Exploration (CASE)

Executive Summary

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EXECUTIVE SUMMARY

Community Ambassadors in Science Exploration (CASE) was a five-year collaboration between four science museums and eight community-based organizations (CBOs). The broad aim of the program was to train a corps of teen and adult peer presenters (Ambassadors) who then led science workshops for underserved families in their communities using curricula developed by the museums. The four museums included the Franklin Institute, the Philadelphia Zoo, The Academy of Natural Sciences, and the New Jersey Academy for Aquatic Sciences (formerly the New Jersey State Aquarium). These institutions have a long history of museum-community collaboration through the Philadelphia/Camden Informal Science Education Collaborative (PISEC).

Goodman Research Group, Inc. (GRG) served as the external evaluator of the program throughout its five years, collecting data from families, Ambassadors, and CBO and museum staff via surveys, telephone interviews, focus groups, and observations.

KEY FINDINGS

The CASE program served communities that are underrepresented in current museum audiences.

- CASE served both females and males from underrepresented minority groups, primarily African American, Latino, and Asian. The most frequent participants were younger than 20 years-old and African American.

CASE succeeded in making informal science learning accessible in participating communities.

- CASE served a total of 10,971 individuals between September 2004 and December 2008.
- Across the five years, families in the eight participating sites had a grand total of 358 opportunities to attend science workshops presented by trained teens and adults from the same communities.
- Families also had 27 occasions to visit the four participating museums. Through workshops and special events, the program enabled families to overcome barriers that would otherwise have limited their ability to attend the museums (i.e., time conflicts, cost, large family size, lack of knowledge about science).

CASE increased families' science interest, understanding, and engagement.

- Across the five years, CASE featured 38 different science workshop topics. The science topics and the accompanying hands-on activities were very appealing and engaging to families. In addition, nearly all workshop participants learned new information in the workshops.

- The program trained the equivalent of 142 teen and adult workshop presenters or Ambassadors whom families found prepared, knowledgeable, and engaging.
- More than half of the families who participated in the workshops were interested in doing workshop activities at home with their children.

CASE was effective in increasing Ambassadors' interest in science, in teaching science, and in building their skills for future employment. The program also was somewhat effective in increasing Ambassadors' interest in science careers.

- In each of the last three years of the program, a large majority of Ambassadors had increased interest in science (ranging from 76% to 92%) and in teaching science (ranging from 76% to 88%). Some (50%-62%) had increased interest in a career in science (not surprising since many of the ambassadors were working adults).
- CASE was also responsible for increases in Ambassadors' involvement in science outside of the program. As a result of participating in CASE, a majority of Ambassadors discussed science-related issues with others, visited a science museum, and tried to find out more about science topics and careers.
- In addition to increasing their interest in science, CASE also provided Ambassadors with opportunities to learn about developing working relationships, with managers/supervisors (i.e., the museum partners and the CBO site contacts) as well as with peers (i.e., other Ambassadors). The program also gave Ambassadors experienced in logistical, financial, and relational problem solving.
- Finally, Ambassadors were quite interested in future CASE-related leadership activities, such as training new Ambassadors and helping museums plan and host family events.

LESSONS LEARNED

Our annual evaluation reports offered specific recommendations for improving program process and outcomes for the following years. Given that the CASE program is drawing to a close, we offer the following broad lessons learned in consideration of any future iterations or replications of the program.

- From the beginning, develop strategies to promote and insure the sustained involvement of families in informal science education programs. Develop the identity of programs separate from the identity of the community-based organizations in which they are held (i.e., "brand" the program). Offer opportunities for program activities to extend into the home.

- Develop clear and easily communicated messages for families about the unique value and benefits of program participation.

- Hands-on experiences are an extremely popular feature of informal science education programs. It is important that hands-on experiences be incorporated into larger events as well as smaller workshops.

- Clearly impress upon informal science education program staff and volunteers the extent of the commitment they are making and consider ways to streamline their training and scheduling of program activities. Among other things, this will increase retention of staff.

- For collaborative initiatives, create as explicit as possible links between the collaborating organizations, in order to increase effectiveness in meeting goals.

In summary, the CASE program can serve as a model for other informal science education initiatives that feature programmatic efforts to increase underrepresented groups' engagement in science, training teens and adults in the community to lead workshops, and collaborative efforts among science museums and CBOs.