

CHAMP

Cooperative Highly Accelerated Math Program

August 2017—May 2018



Audience Thirty nine (39) students grades 5-10 participated in the CHAMP Program. Twenty four (24) students were in CHAMP Year 1; Fifteen (15) were in CHAMP Year 2. Twenty one (21) were male; eighteen (18) were female. Eligibility criteria for CHAMP are: SAT Math score of 560 and a Total score of 1090 or ACT Math score of 21 and a Composite score of 23.

Funding The CHAMP program is supported mainly by student tuition. The CHAMP program receives funding from the Thoman Foundation to provide financial aid scholarships to qualifying families. Support from the MSU Mathematics Department includes identifying three Math professors to teach 2.5 hours each Monday (Novi), Tuesday (Novi) and Thursday (MSU) afternoons.

Objectives This program seeks to

- identify 6th-8th grade students who perform extremely well in mathematics;
- develop students' mathematical potential through the use of appropriate curriculum and instructional pacing commensurate with their abilities;
- * coordinate with multiple school systems and existing community resources to successfully meet the needs of highly gifted students within the framework of the regular school day.

Students completing CHAMP are expected to return to their home school and take AP calculus. They should then consider dual enrolling at their local university or college for additional math courses.

Description Year 1 of CHAMP covers Algebra 1 and Algebra 2 and one unit of Statistics. CHAMP Year 2 covers Geometry and a standard pre-calculus course of Trigonometry, Analytic Geometry, College Algebra and a brief introduction to calculus concepts. Students in each year attend class Thursday afternoons from 1:00-3:30. All are instructed by MSU mathematics classes professors. Class size is limited to 20 students. Additional study sessions are held Sunday afternoons in Novi and Tuesday evenings on the MSU campus. Four MSU Math undergraduate teaching assistants help students during study labs. Students also have access to LON-CAPA and an online forum for 24/7 online assistance. An orientation session for new students is held the last week in August.

Outcomes

In surveys, CHAMP students referenced their major areas of improvement as: time management, problem solving, and study skills. Students commonly said that they were challenged by the program and benefited from learning with other students who also excel in math. Students and parents agreed that the rigorous mathematics curriculum and accelerated pace of the program was a valuable academic challenge that they would not have had in a conventional school setting. 100% of the parents of CHAMP students rated their student's learning experience as either "excellent" or "good". Many former CHAMP students in the past have applied for dual enrollment at Michigan State University. These students usually enter MSU enrolling in MTH 153H, MTH 234 or MTH 235 having completed AP Calculus AB or BC at their home school.

The majority of the students are from Ingham county. Students also come from Shiawassee, Eaton, and Clinton counties, bringing urban and rural students together on MSU's campus.

Expansion of the CHAMP Program

The 2017-2018 academic year was the third year of the CHAMP-Novi program. Classes were held at the Tollgate Education Center in Novi to serve students in the Southeastern Michigan areas surrounding Novi. Weekly study labs were held at the Tollgate Education Center. The program had thirteen (13) students (10 male, 3 female) from ten (10) different school districts.

Contact Information

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