Collaboration in the Classroom: A Model Approach

Tony McCaul
13663 Port Sheldon Street
Holland, MI 49424
616-738-8950
amccaul@oaisd.org

Aaron J. McKim
480 Wilson Road, Natural Resources Room 131
East Lansing, MI 48824
517-432-0318
amckim@msu.edu

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Introduction & Need for Innovation

The ability to collaborate continues to be one of the most important attributes for professional success (National Association of Colleges and Employers, 2018). Therefore, educational spaces should strive to include opportunities for learners to develop collaboration skills (King, Dordel, Krzic, & Simard, 2014). However, beyond recommendations for team-based projects within the classroom, few pragmatic suggestions for fostering collaborative skills exist. In the absence of existing models, one Michigan agriculture, food, and natural resources (AFNR) educator created an innovative way of fostering collaboration within his classroom.

Methodology

Table 1 details the four steps one Michigan AFNR educator took to inform and improve collaboration within his classroom.

Table 1. *Process for Increasing Collaboration within the Classroom*

Steps	Description
The Idea	The AFNR educator participated in a project-based learning training emphasizing collaboration with local businesses to engage students in solving timely and authentic problems.
The Context	The AFNR educator worked with a local robotics company who identified a need to increase collaboration skills among employees within the organization.
The Solution	Students engaged in a project-based learning experience whereby they explored principles of collaboration and how this skill could be enhanced within the company. Students developed a collaboration model, see Figure 1, to be used by the robotics company to improve collaboration.
The Utility	Leveraging student engagement in the project, the AFNR educator adopted the collaboration model within his own classroom. Since then, the educator has used the model to emphasize the real-world nature of collaboration and has designed pre-teamwork processes to prepare students to engage in collaborations.

The emphasis on collaboration within the classroom fits well within the AFNR educator's self-imposed "70-20-10" rule. This rule requires 70% of his instructional time be experiential (e.g., lab, demonstration, field trip), 20% collaborative (e.g., team work, verbal discussion), and 10% spent on formalizing learning (e.g., quiz, personal reflection).

Results to Date

The AFNR educator indicates seeing the local and professional relevance of collaboration has increased student motivation to develop their own collaboration skills. Further, the educator suggests having a model for collaboration provides a touchpoint for students, and himself, to inform collaborations within the classroom. Additionally, the incorporation of collaboration within the 70-20-10 structure of the curriculum led the teacher to state, "students honestly love this style of learning and often say they learn so much more using the 70-20-10 rule."

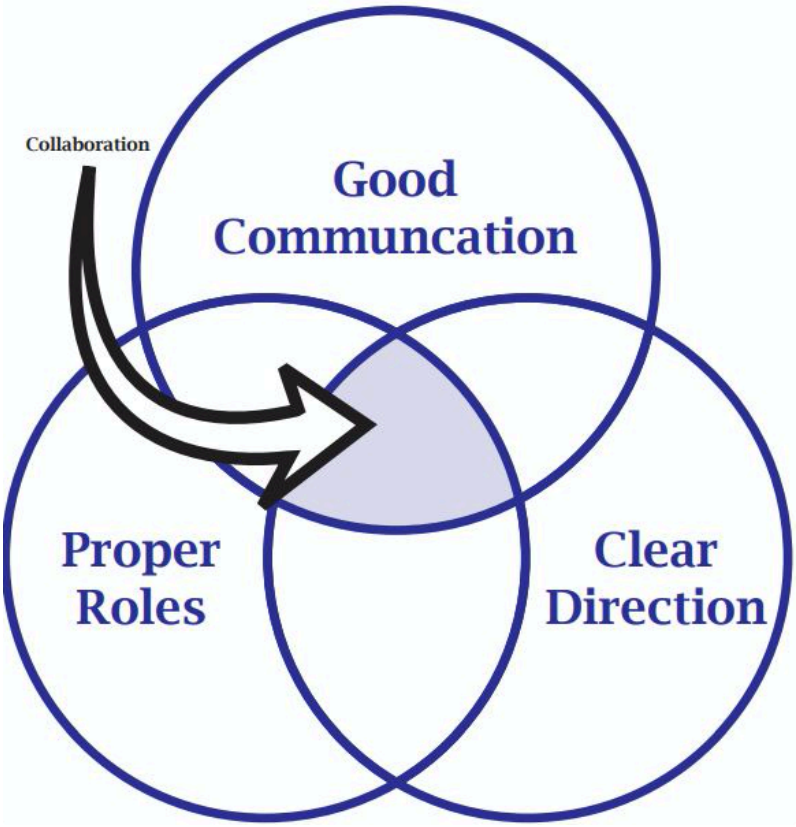

Figure 1. Class-designed model of collaboration.

Advice to Others

This experience yielded three main points of advice for others seeking to increase collaboration skill learning within their classrooms. First, setting the importance of collaboration through a relevant, place-based problem or challenge is recommended as it provides a rationale for collaborative focus within the classroom. Second, teachers should be intentional in modeling good collaboration skills when working with students and, when modeling, teachers should be explicit about the elements of effective collaboration being demonstrated (e.g., clear direction, proper roles, good communication). Third, teachers should avoid assuming students have been taught collaboration skills prior to their learning experience. Collaboration, among other "soft skills," are often neglected in learning environments and we, in AFNR education, have an opportunity to build these skills through each element of the AFNR education model (i.e., classroom/laboratory instruction, supervised agricultural experiences, and FFA).

Costs & Resources Needed

The costs associated with this innovative idea include travel to and from the local robotics business. In total, the teacher and students made two trips to the business, for a total cost of $500. The resources needed include a local business willing to participate in place-based learning opportunities for students.

References

King, C., Dordel, J., Krzic, M., & Simard, S. W. (2014). Integrating a mobile-based gaming application into a postsecondary forest ecology course. *Natural Sciences Education 43*(1), 117-125. doi:10.4195/nse2014.02.0004

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