

Educating Teams

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In our increasingly complex world, teams are becoming vital to success for individuals, and for our society as a whole.^{1,2} Given this premise, we argue here that it is important to restructure our education system to reflect a team-centric world, and describe what that might look like.

It is currently thought that the role of the education system is to produce educated individuals, and it is structured accordingly. Because of this, we miss out on teaching students valuable team-oriented skills, and on creating good teams. There are many trends in education that could be changed to varying extents at different ages, in order to promote teams.

At the most basic level, students could be expected to complete classwork and homework in teams. Their work should then be evaluated collectively alongside individual performance. Once students are evaluated as teams, we can create the right environment for successful teams to arise. Until then, we are not even speaking the right language. One important observation is that once people are being evaluated in teams, different people can start doing different things within their teams. One person can work out the math, while another writes it up nicely. It is not a problem that they haven't both done the same work, because we are interested in educating good teams, not isolated individuals.

We can also consider more directly group work across disciplines. At the university level, one could arrange three courses in three different majors but with related topics, and as part of the courses work in groups formed of one person from each class. They can each learn a different aspect of the material, and moreover learn to work in a group to address the sub-

ject in a cross-disciplinary manner.

As students find groups that work well together, those groups should be encouraged to persist through multiple projects, and even courses. Some courses could be enrolled in and attended by teams. This allows teams to mature and learn and develop into the teams we need in society.

Just as individual students learn from individual teachers, it may make sense for teams to learn from similar types of teams of teachers, so that they can learn different the aspects of the group work they are attempting, and how those aspects are coordinated.

In some places, this is already being done. For example, the Cornell University engineering department has project teams.³ At the New England Complex Systems Institute winter and summer courses students also self-organize into teams.⁴ At these institutions, each team works on a project. Team members learn different roles within the team, and they learn how to work together to combine their parts into a cohesive whole.

In a team-centered world, this model of teamwork and team-centered learning should prevail as a basic way in which we are all educated. In this way we might learn to work in teams, and find teams that suit us well and that we suit well.

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Team-centered education will also enable people to graduate having already formed teams. School will become, among other things, a place to find your team with whom you can enter the workforce. This means that companies can directly hire teams rather than hiring individuals and putting them into teams. The importance of hiring teams directly is discussed in greater detail elsewhere.²

¹Y. Bar-Yam, Teams: A Manifesto: <http://necsi.edu/research/overview/teams-a-manifesto>
Also on Medium: <https://medium.com/complex-systems-channel/teams-a-manifesto-7490eab144fa>

²T. Bar-Yam, Hiring Teams: <https://medium.com/@taerbaryam/hiring-teams-dfbb139fa91a>

³CornellEngineering Student Project Teams: <http://www.engineering.cornell.edu/brand/independent/students/student-project-teams.cfm>

⁴NECSI Courses: <http://necsi.edu/education/school.html>

