"I Hate Group Work!": Addressing Students' Concerns About Small-Group Learning

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This article identifies the strategies used by architecture professors and their undergraduate students to mitigate common issues that students raise about group work. Based on participant-observation, interviews with students and faculty, and analysis of instructional materials and student work, this IRB-approved ethnographic case study complicates the separation of collaborative, cooperative, and problem-based learning into distinct pedagogical models. Rather than viewing students' concerns as a form of resistance that can be avoided with the right approach to small-group learning, this article explores how the hybrid model operating in design studio pedagogy confronts the problems inherent in any form of group work.

The Scholarship of Teaching and Learning (SoTL) literature has a long history of persuading educators to add group work to their existing pedagogy in order to promote active learning and student engagement (Cooper, MacGregor, Smith, & Robinson, 2000; Dunn, 1994; Johnson, Johnson, & Smith, 2014). Approaches to small-group learning range from asking students to contribute to the course design (Brecke & Jensen, 2007; Cassard & Sloboda, 2014) to using *quick-thinks* with a partner during a lecture (Cooper & Robinson, 2014; Johnston & Cooper, 2003). A common argument for small-group instruction asserts that group work does not have to be burdensome for instructors and that students will embrace group activities as a welcome change of pace from routine, lecture-based classes and a competitive, test-taking environment (Cooper & Robinson, 2014; Lane, 2008). However, Walker and Barwell (2009) found that even low-stakes clicker polls made students anxious. If teachers are not prepared to address their students' concerns about group work, then innovative group assignments will be frustrating for all concerned—and, therefore, ineffective and short-lived.

Resistance to group work is often explained by asserting that students are passive learners who do not have the necessary skills to work in groups effectively and who will carry a free-loader in order to get a good grade; students' concerns are quickly dispatched by claims that the right approach will counteract negative prior experiences (Johnson et al., 2014; Michaelsen, Davidson, & Major, 2014). However, educational ethnography research complicates the notion that there is an antidote to *grouphate*, the term used to describe students' negative attitude toward group work (Myers & Goodboy, 2005; Parrot & Cherry, 2011; Sadler, 1994).

This article first defines educational ethnography as a research methodology and describes the author's research context, followed by a brief review of recent SoTL literature on popular models of small-group instruction. Davidson, Major, and Michaelsen (2014), editors of a special issue of the *Journal on Excellence in College Teaching* on small-group learning, argued that educators' failure to understand the theories of learning that underlie different pedagogical approaches can lead to confusion in practice. Certainly, if instructors themselves are not clear about the ideological and procedural differences among the various models of small-group learning, students

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are likely to perceive group work experiences as inconsistent and confusing. Effective small-group instruction does not have to conform to a single approach, however. The case study examples discussed below illustrate how two experienced

professors with very different teaching styles used small-group strategies that do not fit neatly into one established model. Each section foregrounds the concerns that their students voiced and examines how the instructors and students addressed those concerns. The conclusion considers what educators who do not teach in a studio environment might learn from the strategies used in studio classes.

Educational Ethnography: Researching Classroom Cultures and Students' Perspectives

Educational ethnography is a well-established research methodology that has been used to improve teaching and learning practices in writing studies, literacy studies, and education (Bishop, 1999; Frank, 1999; Heath & Street, 2008). Frank (1999) argued that ethnography allows researchers "to make visible what members are doing and learning in classrooms and to record, analyze, and represent the particular kind of classroom culture that is being created" (p. 3). As Heath and Street (2008) defined it, within an academically-based "ethnographic time scale" (p. 62), educational ethnography accomplishes the "goals of rigor and validity" (p. 63) by conveying "rich details" to make the "situations and scenes depicted come alive" (p. 45). Bishop (1999) refers to such studies as "microethnographies" that "report on the culture of a single classroom, the single learner, and even the single learning event" (p. 13). In educational ethnographies, "the complexities of the discrete event, location or setting are of greater importance than overarching trends or generalizations" (Pole & Morrison, 2003, p. 3). Thus, educational ethnography examines how pedagogical theories are enacted in specific academic contexts.

The case study examples discussed below are drawn from an educational ethnography conducted at a large, public, mid-Atlantic, Research 1 University that offered a five-year undergraduate Bachelor of Architecture (B.Arch.) degree. The semester-long, IRB-approved study included participant-observation, semi-structured interviews, and analysis of artifacts (teaching materials and students' work) in first-year, third-year, and fifth-year (thesis) design studio classes. These studio classes met three times a week for three hours and twenty minutes per class session in a fifteen-week semester. In addition, the students had around-the-clock access to dedicated studio workspace. Data were collected during scheduled studio meetings using field notes, audio recordings, and photographs. This article focuses on the two third-year studio classes because they required group work. The third-year cohort of participants included twenty-three students and two instructors, Lynn and Tracy (all names used are pseudonyms), both of whom are licensed architects as well as studio professors. As a participant-observer, the researcher was explicitly invited to "contribute to the studio" by asking questions and sharing observations from the perspective of a non-architect with expertise in communication. Data was analyzed using the constant-comparative method, an iterative approach that involves descriptive and analytical coding and member-checking (Heath & Street, 2008; Hesse-Biber & Leavy, 2006). The findings presented below analyze Lynn's and Tracy's pedagogical approaches through the lens of SoTL scholarship on small-group instruction.

Collaboration, Cooperation, or Real-World Problem-Solving?

Davidson et al. (2014) identified the similarities and differences among four models of small group instruction: collaborative learning, cooperative learning, problem-based learning (PBL), and team-based learning (TBL). The TBL system has the most rigid requirements, while collaborative learning is portrayed in SoTL literature as the most vaguely defined and least structured model. It is the only small-group instructional method that is considered "research-based" (as opposed to "evidence-based") because no causal relationship between collaboration and increased learning has been statistically established (Davidson et al., 2014, p. 2). As such, collaborative learning has been dismissed as a less rigorous small group

learning model by some SoTL scholars whose disciplinary stances valorize quantitative research and highly structured learning assessment methods (Michaelsen et al., 2014; Millis, 2014). However, there are several problems with this negative characterization of collaborative small-group instruction.

First, as Davidson and Major (2014) acknowledged, the research supporting collaborative learning tends to be qualitative and descriptive, rather than quantitative and statistics-driven, because the collaborative learning model originated in the humanities. Pole and Morrison (2003) argued that when researchers from a positivist tradition raise "epistemological challenges about the nature of the knowledge which ethnography yields," it is pointless "to counter them by arguing that the findings from ethnographic research are precise or objective or generalizable" because "to do so would be to fall into a technical trap of judging ethnography by characteristics to which it does not aspire" (p. 15). Such criticism of *qualitative* collaborative learning research (on the grounds that it does not meet the standards of *quantitative* research) clearly undermines the spirit of interdisciplinary dialogue that enriches SoTL scholarship. As Cassard and Sloboda (2014) recently argued in this journal, "Cross-disciplinary efforts in promoting the scholarship of teaching and learning are crucial since they enhance the teaching and learning process" (p. 45).

Secondly, in SoTL scholarship that favors other models, such as Millis's (2014) work on cooperative learning, criticism of collaborative learning is based on the inaccurate image of an undisciplined free-for-all, where the teacher abdicates his or her authority and the students run amok. Descriptive case studies of collaborative learning practices, including the ethnographic educational research presented below, counter this unfair characterization.

Finally, there is a language problem. It is not always clear whether educators are using *collaboration* as a technical term referring to a specific model of small-group learning or as a general term for people working together. Therefore, much of what instructors in the humanities describe as *collaboration* would actually count as *cooperative* learning from the perspective of STEM or professional programs. As Davidson et al. (2014) observed, "Many educators use the terms cooperative and collaborative learning interchangeably, when in fact these methods differ widely in philosophy and approach" (p. 2). For example, although it is identified as an analysis of *cooperative* learning, Brecke and Jensen's (2007) *InSight* article described features that would be classified as *collaborative* by other SoTL scholars, such as the division of labor (cf., Davidson & Major, 2014) and responsibility for the learning environment (cf. Asgari & Dall'Alba, 2011).

In general, cooperative learning emphasizes the instructor's responsibility for establishing structured group work procedures and for explicitly teaching social and communication skills (Asagari, & Dall'Alba, 2011; Millis, 2014). Proponents of cooperative learning insist that each student is held accountable for learning everything the task involves, as opposed to collaborative work, which may encourage students to develop individual expertise or component parts that they contribute to the group effort (Davidson & Major, 2014). The distinctions between cooperative and collaborative learning models hinge on the roles of the instructor and the students. In contrast, PBL, which was originally developed for medical and professional fields (including architecture), has one non-negotiable defining characteristic: the group's task must address a real-world problem and share "a tangible expression" of the solution as evidence of the knowledge gained (Davidson & Major, 2014, p. 25). A "theoretical synthesis" of collaborative and cooperative learning models, Davidson and Major (2014) argued, can also be extended to PBL (p. 30). The ethnographic case study below illustrates what such a theoretical hybrid model looks like in practice.

The key differences among these three approaches fall into the following categories: "how groups are formed, how or whether to teach interpersonal skills, the structure of the group, and the role of the teacher" (Davidson & Major, 2014, p. 30). These factors also relate to the concerns that students raise when they resist, struggle with, or even embrace the inevitable messiness of group work. Cooper et

al. (2000) stated that student resistance is tied to "lack of clarity in small-group assignments; unclear or unfair grading of small-group work . . .; inequitable commitments to teams by individual members; poor planning and organization of the group activities; and inadequate introduction or rationale for group work" (p. 25). The examples below explore some of these issues and describe how students' concerns were mitigated. It would be disingenuous, however, to claim that any pedagogical model could (or even should) eliminate the issues that must always be negotiated when group work is used.

"Loosey-Goosey" or "Helicopter" Teachers: Concerns About the Instructor's Role

In SoTL literature, educators who employ collaborative learning have been characterized as "loosey-goosey" (Millis, 2014, p. 140), while those who adopt a structured, prescriptive approach have been labeled "helicopter" teachers (Love, Deitrich, Fitzgerald, & Gordon, 2014, p. 193). Ideally, the instructor's role in small-group learning should be responsive to students' needs. The third-year design studios taught by studio professors Lynn and Tracy followed Boyer and Mitgang's (1996) recommendations for an architecture curriculum "built around collaboration and teamwork, not only with other architects but with other disciplines" (p. 45). In each studio, PBL was clearly present, as students worked in groups to design a solution to a real-world problem. Lynn's students designed an ideal settlement to revive a desert ghost town while preserving its historic culture and natural environment. Tracy's students consulted with a community organization in a struggling neighborhood that bordered the inner-city campus to design an "urban intervention" to "potentially rejuvenate" the "interface of the 'town' with the 'gown.'"

Tracy's teaching style was more directive than Lynn's, yet they both incorporated cooperative and collaborative small-group learning strategies. Lynn deliberately took a hands-off approach, saying "I'm not going to tell you what to do." She expected her students to work out their differences and set their own deadlines as part of the process of learning to work as a design team. In contrast, Tracy created long lists of requirements for her students' presentations. Although Tracy viewed the "fixed" guidelines as necessary preparation for methodical, disciplined inquiry and as a starting point for individual exploration, her students sometimes interpreted Tracy's lists as restrictive, rule-based, and even arbitrary. Although her students felt that they needed explicit permission to deviate from the written requirements or they would risk getting a lower grade, Tracy viewed the requirements as negotiable and expected her students to use their own discretion: "Think about it. Make it so that it's meaningful for your exploration—not to check off a box because 'Tracy told me to do this.'"

Tracy's students welcomed explicit direction when they were stuck or wanted to try something new, but they resisted it when they felt that it was being imposed upon them. For example, Chuck complained that Tracy was "all about hand drawing," which he saw as inefficient because digital drawing was so much faster for him. Less than two weeks before the final review, Tracy insisted that Chuck hand draw an alternative design that would feature horizontal rather than vertical expansion of a building, telling him to "stop arguing" and "draw faster" when he protested. At the next studio meeting, Chuck commented, "I changed my design to all horizontal, and she loved it today. Sometimes you just have to do what you have to do." Chuck complied with Tracy's directive; however, as a designer, he was frustrated by what he perceived as a loss of agency in terms of the design process he had developed in consultation with his peers.

Lynn rarely intervened in her students' design process directly, but she acted as a consultant when her students were at an impasse. When Lynn's students asked her for specific direction, she would pose questions, offer suggestions, clarify or supply information related to their site, and demonstrate techniques instead. For

example, Lynn's student Jeff invited her to use his pen to illustrate an alternative drawing technique during an informal critique of his work. Lynn told him she preferred a pencil, but she did not question his practice of using pen, a tool typically associated with final drawings, to sketch in his sketchbook. In contrast, Tracy was particular about the drawing tools her students used. When reviewing her student George's sketchbook drawings, Tracy told him to "get rid of that pencil" because she wanted him to work with a finer, harder lead to make more precise lines. Although their communication styles were quite different, Tracy and Lynn both challenged the students to push themselves beyond their comfort zones. Neither Tracy's nor Lynn's pedagogical practices conformed to the expected role of the instructor in a purely collaborative, cooperative, or PBL small-group learning model.

"All Up in Each Other's Business": Concerns About Students' Roles

Students in both studios complained that they had done "so many group projects with the same people," that their close relationships could be a liability as well as an asset. Lynn's student Nora joked, "We are all up in each other's business all the time." The cohort's history of positive and negative group work experiences affected both their selection of partners (when they were given a choice) and the division of labor within groups. Interpersonal relationships, design method preferences, group dynamics, and the strategies Lynn and Tracy used to form groups all shaped the way the studios functioned as learning communities.

Both studios began with instructor-selected groups charged with doing preliminary research on one aspect of the problem and sharing the results with the entire studio. Lynn explained that this collaborative division of labor avoided duplication of time-intensive work. Lynn then allowed her students to form their own design teams, which worked together for the remainder of the semester. In Lynn's studio, each design team was responsible for the entire project site. No two students on the same team could focus on exactly the same area of the site, and all of the individual designs within a team had to complement each other. Thus, Lynn designed the task so that, to be successful, her students needed to cooperate with each other at every stage of the process, since each student's choices impacted the rest of the team's designs.

In contrast, Tracy divided her students into groups and assigned a different neighborhood site to each group. Within these boundaries, students in the same group could design entirely different interventions that occupied the same space without considering how one person's design might affect another's. The students in Tracy's studio groups coordinated their efforts only when they needed to prepare for formal presentations. Otherwise, they worked independently and gravitated toward informal partnerships. For example, Chuck and Ned, who were in different groups, regularly debated difficult design decisions and informally critiqued each other's work, coaching each other on how to respond to Tracy's formal feedback. During the scheduled whole-studio reviews of each other's projects, Tracy's students politely responded to her prompting, but they were reluctant to challenge each other's designs openly.

During reviews, the design teams in Lynn's studio were animated, even confrontational. Lynn explicitly coached them in "asking the right questions," shifting the students' practice from arguing for specific changes to asking open-ended questions that exposed issues that had not been adequately addressed in each other's designs. During this intense group-learning process, every team experienced interpersonal conflicts. When Lynn's studio debriefed at the end of the semester, Rose commented, "I'm a people person, but—wow—that was…that was interesting. Not just my group. Watching everybody else, too." Nora and her partner Sheila, for example, did not speak to each other for a week. Yet as Jeff observed, each group had also "had a moment" when they had really excelled as a group. As a studio, Lynn's students were able to laugh at themselves and talk freely about the problems they had all experienced. Despite the structural differences in the two studios, the students developed ways to manage their

concerns about group dynamics, whether overtly (in Lynn's studio) or by creating their own informal structures (in Tracy's studio).

"We Don't Have Time for That": Concerns About Fairness and Resources

The largest group in Lynn's studio (Stephanie, Mary, Jeff, and Allen) "hung together as a group for most of the semester," only to fall apart in the last week. Mary's model was unfinished, and Jeff had not started his (in part because he needed information from Mary). Her body tense and her voice strained, Stephanie told Allen, "I hate group work!" Even though Lynn's grading system took both individual and group work into account, Stephanie's fear was that if her teammates did not finish their individual components in time to help with the remaining tasks that the group needed to accomplish together, she and Allen would "end up doing everything [them]selves" so that their group would "get a good crit" at the final review. Instead, during a scheduled consultation with Lynn, Stephanie confronted Jeff directly and explained what Mary was doing, and the group survived the normal end-of-semester stress.

In Tracy's studio, students complained about her grading policy: "The entire group will be given the same grade unless it is obvious that a student is not pulling his weight or if they are far exceeding the output of the other team members." Tracy asserted, "I do not anticipate great disparities as you are all in the professional program and have a good deal of experience." Nevertheless, Tracy's students covered for each other when they feared their own grades were on the line. For example, Lee interrupted her own work to edit her group members' digital drawings so that they would all be consistent. Regardless of the grading policy, students in both studios experienced conflicts over the division of labor, but they handled those problems differently.

Although sharing knowledge was a core value of the studio community, the extent to which that occurred was mediated by time, spatial arrangements, and the nature of the projects. In their second-year studios, the students had all worked in one open area. Stephanie reflected, "There were probably twenty-five people I could see from my desk. And we all worked on the same sites. We went in different directions, but there was a lot of sharing that happened." However, in their third year, the students were physically divided into different studios with completely different projects. Also, Lynn's and Tracy's decisions about how to structure their respective studios undermined the collaborative and cooperative learning strategies the students had previously developed. As Stephanie explained,

> Now, we really don't talk to each other about our projects in that way . . . because I can only help you so much without you having to explain your entire project to me, and we don't have time for that.

Conclusion: Developing a Hybrid Model of Small-Group Instruction

As Davidson and Major (2014) suggested, "Those who use any given approach [to small-group instruction] might learn from those who use the other approaches" (p. 42). Yet few instructors in higher education teach under the seemingly ideal conditions for small-group learning that were inherent in Lynn's and Tracy's studios. Studio classes are small by definition, and most of the ten hours per week of studio class time was used for hands-on, production-focused activities— a feature of design studio pedagogy that pre-dates the flipped classroom model. Both instructors were well-prepared, organized practitioners who had carefully designed projects based on real-world problems for their experienced, engaged students. Yet in both studios, those students raised concerns about group work that have typically been attributed to students' inexperience or negative attitudes, inadequate infrastructure, poorly-designed assignments, and instructors' shortcomings. If these factors cannot account for the problems associated with

small-group learning in Lynn's and Tracy's studios, then perhaps educators need to consider a paradigm shift. The goal in designing effective small-group instruction is not to eliminate the problems that both students and instructors will encounter but to confront those concerns in productive ways.

It goes without saying that poor pedagogy will not produce successful learning experiences. Many of the criticisms leveled at particular models of small-group learning have more to do with bad teaching than with the inherent features of the pedagogical model itself. Clarity, fairness, effective communication, and organization are always necessary, whatever the model. Yet there are some lessons that all instructors can learn from the studio case study examples presented here:

- When designing and implementing small-group learning experiences, instructors need to balance freedom and control—to be flexible and responsive to students' needs.
- If students have no control over how groups are formed for long-term, high-stakes projects, they may subvert the group process by disengaging, taking over, or creating alternative partnerships.
- There is *never* enough time for group work, and there are *always* going to be interpersonal conflicts—but these issues do not have to derail the learning process.
- Purely collaborative or purely cooperative group work is rare in practice, and PBL encompasses both, whether overtly or implicitly.

Based on these insights from educational ethnography, instructors who want to incorporate small-group learning into their pedagogy face a more challenging task than simply choosing from a menu of models. Instead, they should consider how real-world problem-solving, cooperation, and collaboration can best be combined, perhaps at different stages of the learning process, to meet their specific learning goals and objectives. Above all, instructors should not presume that if they select the *best* model, their students will not experience grouphate. In fact, as the examples from Lynn's and Tracy's studios demonstrate, productive teachable moments occur when students openly express their concerns about group work.

Cooper et al. (2000) argued, "When it comes to student resistance, we do not think we can underestimate the shifted expectations students have to experience as they begin to understand, see the value in, and invest energy in small-group learning" (p. 26). Lynn's and Tracy's students were accustomed to group work and understood the reasons for it, even when they were frustrated. Yet "experience alone will not always create more positive attitudes about learning in groups" (Hillyard, Gillespie, & Littig, 2010, p. 18). Therefore, educators need to be proactive and explicit in communicating the rationale for small-group learning so that the students can begin to trust the process. Instructors who do not teach in programs where collaboration, cooperation, and problem-based learning are core values will need to work even harder than Lynn and Tracy did to create a classroom culture that supports small-group learning.

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First, educators must address two issues about collaboration that Cassard and Sloboda (2014) raised in this journal: engaging in "cross-disciplinary conversations" about pedagogy (p. 48) and "incorporating [students'] perspectives" when designing courses (p. 45). Rather than blaming students or instructors, defending a preferred model, or viewing difficulty and resistance as failure, educators can develop hybrid models of small-group learning that are supported by SoTL scholarship, meet discipline-specific goals, and address students' concerns.

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