Virtual forms, actual effects: how amplifying student voice through digital media promotes reflective practice and positions students as pedagogical partners to prospective high school and practicing college teachers

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Abstract

Digital media have unique potential to amplify student voice in both high school teacher preparation and academic development for college faculty. This paper applies narrative analysis to participant descriptions of how three uses of digital media amplify student voice in the context of a single higher education consortium: (1) high school students and prospective high school teachers use email to engage in dialogue as part of a larger project within the consortium’s secondary teacher preparation program, (2) undergraduate student consultants use visual mapping technology as a classroom observation tool through one of the consortium’s academic development programs for college faculty and (3) graduate and undergraduate students, faculty and staff engaged in pedagogical partnerships within and beyond this consortium use on an online platform to publish reflective essays on their collaborative work. Amplifying student voice through these uses of digital media has the following actual effects: it creates the possibility for exchanges between students and teachers across space and time; it supports the development of reflective practice; and it encourages the embrace of a partnership approach to teaching and learning.

Introduction

Despite the growing students-as-partners movement (Healey, Flint, & Harrington, 2014), students’ voices and influence are still largely absent from both initial preparation to teach at the high school level and forums for the ongoing academic development of college faculty. This paper applies narrative analysis to participant descriptions of how three uses of digital media amplify student voice in the context of a single higher education consortium in the mid-Atlantic United States. The first is the use by high school students and prospective high school teachers of weekly email messages to engage in dialogue with one another as part of a larger project within the consortium’s secondary teacher preparation program. The second is undergraduate student consultants’ use of visual mapping technology as a classroom observation tool through one of the consortium’s academic development programs for college faculty. And the third is the use of an online platform by graduate and undergraduate students, faculty and staff engaged in pedagogical partnerships within and beyond this consortium to publish reflective essays on their collaborative work. Snapshots of each of these provide preliminary glimpses into how amplifying student voice through use of these three virtual forms achieves the actual effects of connecting students and teachers across space and time, supporting the development of reflective practice, and encouraging the embrace of a partnership approach to teaching and learning.

Snapshot #1: Reflecting on a semester-long, weekly email exchange with a high school student that was a required component of her teacher preparation, a prospective high school teacher described a critical insight the exchange afforded her: “[There] was a really big turning point in the ...project where I realized that I was dominating discussion [in the exchange of emails] and that’s not what I believed.” This insight prompted this prospective high school teacher to reflect
further: “I know on paper I can say, ‘Oh, I really want student voice to be a dominant part of my classroom.’ But, when it really comes down to it, can I somehow foster an environment where that’s true?” Through this mediated dialogue with a high school student and her reflections on it, which both made the space for and captured this prospective high school teacher’s analysis, the disconnect between her espoused theory and her actual practice became starkly discernible to her. Her recognition of this disconnect prior to assuming responsibility for her own classrooms full of students prompted this prospective high school teacher to be intentional about developing a pedagogical approach that supports student voice and is integral to a redefined understanding of the lived relationship between teachers and students (Cook-Sather, 2007, 2014).

Snapshot #2: In the context of an academic development program that supports semester-long pedagogical partnerships between college faculty members and undergraduate student consultants, an undergraduate student consultant used the color-coded circles and lines of a visual mapping technology to represent patterns of student contribution she noted during her weekly observations in her faculty partner’s course. The faculty member explained that, through “continuous discussions” with her student consultant, the two of them “refined the tool of classroom maps to keep track of the directions of conversations” and other relevant patterns of participation. The insights derived from these mediated representations and in-person conversations in turn informed how the faculty member positioned herself in the room—literally—and how she facilitated discussion among the undergraduate students enrolled in her course (Abbot, Cook-Sather, & Hein, 2014). Through this use of digital media, both the voices of the undergraduate students enrolled in the faculty member’s course and the voice of the undergraduate student consultant, who was not enrolled in the course, informed that faculty member’s classroom practice. The faculty member and her student consultant strengthened the face-to-face relationship between them and additionally between the faculty member and the undergraduate students in her course.

Snapshot #3: Essays written by student consultants and collaborators published in the online journal *Teaching and Learning Together in Higher Education* bring undergraduate and graduate students’ experiences and insights, as articulated in their own voices, into ongoing conversation among teachers, students and staff in higher education about classroom practice. These essays both model and analyze partnership approaches to teaching and learning. For instance, essays about the planning, implementation and assessment of innovative curricular efforts such as Bryn Mawr College’s 360° program highlight the critical role undergraduate student consultants can play in supporting the smooth unfolding of such complex curricular efforts. Faculty and staff reading these essays, in spaces and times removed from where the essays were written, can be inspired to develop their own approaches to amplifying student voice and enacting student-teacher collaboration (see, eg, Torda & Richardson, 2015; Cohn, 2012).

These snapshots offer glimpses into how virtual forms created by the digital media of email, visual mapping technologies, and online journals have actual effects. First, they provide platforms within teacher education and academic development to promote and develop student voice. These platforms allow for exchanges in which each interlocutor can imagine the actual presence of the other, but they do not necessitate physical meeting; this allows each individual to think more clearly as an equal instead of as someone with a distinctly different position of power and authority. Second, the virtual forms support engagement in reflective practice (Rodgers,
2013; Schön, 2011) in real time, and the digital records of the exchanges constitute tangible representations of insights gained, which can be returned to and reflected upon further at other times. And finally, these virtual forms support the development of pedagogical partnerships—exchanges and relationships based on respect for different voices, sharing of power and reciprocity in exchange of contributions (Cook-Sather, Bovill, & Felten, 2014).

**Method**

Since the advent of these forums for mediated exchange, I have engaged in IRB-approved action research to study participants’ experiences, outcomes and reflections. In this discussion I apply a form of narrative analysis (Schutt, 2011) to look across my own and others’ publications on this work. Narrative analysis “seeks to put together the ‘big picture’ about experiences or events as the participants understand them” (Schutt, 2011, p. 194). While I have previously analyzed participants’ experiences in these separate forums, I have not looked across them at the “big picture” of how participants experience virtual forms in particular serving to amplify student voice, deepen reflective practice and encourage the embrace of a partnership approach to teaching and learning.

In the next several sections, one for each of the three forums, I offer an overview of the context and participants and discuss how the particular virtual form of digital media has the actual effects of supporting the development of pedagogical partnerships that span positions, spaces and times and engagement in reflective practice (Rodgers, 2013; Schön, 2011), both of which, in turn, inform the practices of teachers and students in their own classrooms. In the subsequent discussion section, I draw on my narrative analysis to foreground student and teacher participants’ own words and interpretations of their experiences.

**Snapshot #1 expanded: linking high school students and prospective high school teachers through email**

The email exchanges between the high school students and prospective high school teachers unfold within the context of Teaching and Learning Together, based since 1995 in the high school teaching methods course offered at Bryn Mawr College. This is the penultimate course required for certification to teach at the high school level offered in the semester prior to practice teaching. Originally supported by grants from the Ford Foundation and the Arthur Vining Davis Foundations, the project has been fully supported by Bryn Mawr and Haverford Colleges since 2000. To date, over 260 high school students and prospective high school teachers have participated.

There are four components to the project: a weekly, one-on-one email exchange between each prospective teacher and a student who attends a public high school in the nearby city of Philadelphia and who earns a small stipend for participating; weekly 30-minute meetings of the high school students convened by a school-based teacher at the students’ school that are focused on the topics addressed in the methods course and that are audiotaped, uploaded as podcasts and assigned as required reading to the prospective teachers; weekly discussions in the college-based seminar during which the prospective teachers talk about what they are struggling with, learning from and integrating into their plans for practice from the email exchange; and an end-of-semester analysis paper for which each prospective teacher selects a focus and quotes excerpts
from the email exchanges, podcasts of discussions among the high school students, and college-based class discussions.

The digital medium of email allows for dialogue between high school students and prospective high school teachers that would not occur otherwise because the two groups spend their days in different places, literally separated by space and time. Feedback from participants suggests that this use of email creates an always-accessible platform, which to both high school students and prospective high school teachers feels safer and more deliberate than many face-to-face exchanges might feel. This is predominantly due to the ways that positions of power and authority tend to be reinforced in the context of a physical meeting. In addition, the email exchange ensures that student voices inform the ongoing process of prospective high school teachers’ development; because the dialogue is sustained for an entire semester prior to student teaching, the prospective high school teachers learn to listen to and talk with high school students in ways that most educational structures do not allow or support. Finally, the digital medium of email provides a record of exchanges to which prospective teachers can return to analyze what they learned immediately after the partnerships end as well as subsequently, during their practice teaching and when they have responsibility for their own classrooms.

The goal of this project is to contribute to the preparation of reflective high school teachers who listen to students’ voices and have those voices inform pedagogical practice and relationships. The primary focus of both the college professor who teaches the course in which the project is situated and the school-based teacher who co-facilitates the project is on the instruction of the prospective high school teachers, although the high school students learn from the experience as well. Indeed, both the high school students and the prospective high school teachers find that as a result of participating in this project they develop a deeper understanding of teaching and learning, greater confidence and clarity about their roles in both, and a commitment to more of a partnership approach to education. (For more detail, see Cook-Sather, 2002, 2007, 2009; Cook-Sather & Curl, 2014.)

Snapshot #2 expanded: using visual technologies to map student contributions to college classroom conversations

The Students as Learners and Teachers (SaLT) program, based since 2006 in the Teaching and Learning Institute (TLI) at Bryn Mawr and Haverford Colleges, creates a forum for both mediated and in-person dialogue between undergraduate college students and college teachers. The signature program of the TLI, the SaLT program was developed with the support of several grants from The Andrew W. Mellon Foundation and has been supported subsequently by the Bryn Mawr and Haverford College Provosts’ Offices. Between 2006 and 2016, 140 undergraduate student consultants participated through the SaLT program in a total of over 275 pedagogical partnerships with faculty members.

Virtually all incoming faculty members at these two colleges participate in the program (Cook–Sather 2016), and in previous years, continuing faculty with various years of experience also chose to participate for a variety of reasons (Cook-Sather 2008, 2011). Any second-year through fourth-year student who is enrolled as an undergraduate at Bryn Mawr or Haverford Colleges may apply to be a student consultant, and all consultants receive stipends for their participation. Student consultants attend an orientation, receive a set of guidelines for developing
partnerships with college faculty members, and participate in weekly meetings with me in my role as director of the program and with other undergraduate student consultants to discuss how best to support faculty members in developing classrooms that are both welcoming and productively challenging. These undergraduate students are not enrolled in the courses for which they serve as consultants and often have no background in the subject matter, which makes them particularly helpful to faculty for the “naïve” perspective the consultants bring (see Cook-Sather 2016, for a discussion of this point). They visit one session of their faculty partners’ courses each week, take detailed observation notes, and share those notes in weekly meetings with their faculty partners. (For more detail, see Cook-Sather 2011, 2014.)

The undergraduate student consultant who developed the approach to mapping patterns of student contributions to classroom discussion first drew out maps by hand as she took observation notes during her weekly visits to her faculty partner’s classroom. She marked student contributions as they happened, drawing lines connecting individuals who spoke to one another’s contributions, marking students who participated verbally with semicircles radiating from their position on the map, and drawing the semicircles thicker or thinner based on how long a student spoke. She later transferred these notes to digital form on the computer using Adobe InDesign, and as she grew more accustomed to the tool, she began to use it during her classroom observations.

Below is an example of one of her maps.
This virtual form captures the undergraduate student consultant’s perception of what is happening in the faculty member’s classroom in a visually arresting representation of a largely aural and transient phenomenon. Not only does this kind of mapping capture the physical space of a classroom and how faculty and students occupy it in a way that descriptive notes cannot, it also provides detailed records, frozen representations of dynamic and past phenomena, to which faculty members and their undergraduate student consultants can return and use to inform considerations of what changes in pedagogical approach might be beneficial to undergraduate students enrolled in the course (Abbot et al., 2014). The maps become the focus for ongoing face-to-face dialogue, informed by both the undergraduate student consultant’s and the college faculty member’s perspectives, that in turn affects discussions in that classroom (Cook-Sather & Motz-Storey 2016).

**Snapshot #3 expanded:** using online forums to connect students and faculty across contexts

Having forums for reflective practice can deepen pedagogical awareness and practical capacity because they create platforms for and document analysis of “knowledge in action” (Schön, 2011, p. 12), capturing the cycle of interpretation and action (Rodgers, 2013) that constitutes reflective practice and providing these representations to which teachers can then return. *Teaching and Learning Together in Higher Education* serves as a forum for the reflective writing of college faculty and students working together to explore and enact effective classroom practices. Premised on the centrality to successful pedagogy of dialogue and collaboration between faculty and students in explorations and revisions of approaches to teaching and learning in higher education, the journal has several aims: (1) to include student voices in analyses and revisions of educational practice at the postsecondary level, (2) to offer windows onto the development of pedagogical insights that faculty and students gain when they collaborate on explorations of classroom practice and systematically reflect on that collaboration and (3) to create forums for dialogue between faculty and students whose work is featured in this journal and others engaged in similar work at other colleges and universities.

Supported originally by a grant from The Andrew W. Mellon Foundation, the journal is now sustained by Bryn Mawr and Haverford Colleges. Since the fall of 2010, three issues of the journal have been published each year. Virtually every issue includes essays written by students who have worked in pedagogical partnership with college faculty. Some of the essays include graphic representations to capture the partnership dynamics and insights garnered. For instance, Larson’s (2012) reflections on what she called the “expressions of gratitude” that characterized her email exchanges, notes from meetings, and observation notes of her faculty partners’ classrooms are captured in a pdf of a Venn diagram. Another approach, such as Oberfield and Wu’s (2011) essay called “Learning by Doing,” uses two columns to capture how Oberfield and Wu, a faculty member and undergraduate student consultant, respectively, developed insights in tandem. Their parallel processes of development are captured in the digital representation of side-by-side reflections.

Another common use of digital media within the online journal is the integration of Sticky notes. For instance, Mulligan (2011) used the Sticky function within Word to capture his student consultant’s comments and suggestions in a digital representation of significant ways in which he revised his course syllabus and assignments based on her weekly observation notes and his weekly meetings with her. Likewise, Walker (2012) included both excerpts from email messages
from her student consultant and Sticky notes within a Word document to highlight the insights her consultant offered regarding the process of gathering midsemester feedback in which she engaged. These uses of digital media create both a visual and a lasting representation of how the voices of the undergraduate student consultant and college faculty member worked in dialogue to inform understanding of teaching and learning and produce a tangible change in classroom practice.

**Discussion**

All of these uses of digital media create virtual forms outside of the traditional spaces (literal and conceptual), synchronous times, prescribed positions and typical modes of interaction through which students and teachers generally engage. The traditional spaces that these virtual forms link include: a high school and a college-based teacher education program; the arenas of teaching and learning typically delineated by the clearly defined roles of undergraduate student and university faculty member; and the campuses of different institutions of higher education. These digital media convey and capture communications between spatially separated groups as well as participants in the same space who engage with the digital representations at different times. Within and through these virtual forms, teachers and students can engage in a blurring of traditional roles and responsibilities. Most notably, the teachers learn from the students, but the exchange is much more reciprocal, with all those who engage through these virtual forms embracing both roles and sharing power in and responsibility for teaching and learning.

All three of these uses of digital media have the potential to strengthen teacher–student relationships in ways that contribute to affirming and to improving pedagogical practice and learning experiences. As documented in numerous publications cited throughout this discussion, there is extensive evidence of this potential. Here, I mention a few illustrative examples.

Writing about her email exchange with her high school partner, one prospective high school teacher reflected how, somewhat counter-intuitively, digital media break down power hierarchies and facilitate deeper person-to-person connections:

> The discussion with my high school dialogue partner really would not have happened in the same way face to face. Because e-mail has the effect of socially leveling student and teacher (we both are just e-mail addresses), the student was more comfortable ‘talking’ via e-mail than in person where my gender, age, and general ‘presence’ would shut her down.

Finding ways to connect with, listen to, and learn from high school students like those they are preparing to teach enables prospective high school teachers to carry a listening approach into their practice. As another prospective teacher reflected:

> The experience made me realize that as much as I thought I knew my student partner, by listening to him, I found something surprising that demonstrated a richness and deepness to his personality and experiences I hadn’t previously known and appreciated. This motivated me to assert that when I’m a teacher I have to realize that there is a lot about each of my students that I don’t know, but if I take the time to listen to them talk, I will find something new and wonderful.
Practicing university faculty rethink pedagogical relationships and practices in similar ways when they attend to digital representations of undergraduate student consultants’ perspectives. For example, the visual representations of student contributions to college classroom discussions captured through use of digital mapping technology prompted the faculty member who taught that course and her undergraduate student consultant not only to revise the way the faculty member facilitated discussion within her classroom but also to seek an actual classroom space more conducive to learning: “As we approached mid-term in the semester we decided to ask for a different space. The choice to change the classroom reshaped our conversations, yet another expression of the way in which space and behavior are intertwined” (Abbot et al., 2014). The digital representation illuminated the need for a space more conducive to engaged teaching and learning. As the faculty member put it: “We had a sense of these issues before mapping, but a heightened awareness of the classroom space helped make them more explicit.”

When digital media capture graduate and undergraduate students’ perspectives and convey them to a wider audience of faculty and staff in higher education, those perspectives can inform the analyses and practices of teachers at institutions far removed from those students’ own. For instance, in her essay, “Creating a Learning Environment with Shared Responsibility for Assessment,” Doyle (2015) describes how, in her Introduction to Linguistics course, she is “asking students to venture into previously-unexplored territory, to risk taking a position of some authority in a field brand new to them, and to do so with fellow students they may not know at all, in a course required for their specific major.” Suggesting that “all this leaves the students in the class feeling alone and awash in uncertainty,” Doyle then cites Jenness’s (2013) essay on the importance of being comfortable with uncertainty: “As Bryn Mawr student Sarah Jenness noted (2013), becoming comfortable with uncertainty in the service of learning is a threshold concept, one which many of my students have not yet crossed.” In her essay, Doyle uses Jenness’s insight to review her own teaching—a review that yields deep insights into how Doyle herself has evolved over the years to be a teacher who shares responsibility for assessment with her students, a profound form of teaching and learning together.

**Implications**

When students are afforded opportunities to analyze how classroom teaching and learning work, they develop a language to talk about teaching and learning, confidence to engage in conversations about those, and agency in their own practices as learners (Cook-Sather, 2011; Cook-Sather & Luz, 2014). Developing voice, confidence, and agency positions students to enact a form of democratic participation in schools and colleges, embodying stronger relationships and supporting more empowering practices. As the three examples discussed here illustrate, through dialogue mediated and captured by digital forms, students and teachers can share responsibility for teaching and learning. Such a sharing of responsibility leads to greater engagement, a stronger sense of identity as teachers and learners, and enhancement of teaching and learning for both teachers and students (Cook-Sather et al., 2014). Indeed, partnership approaches that intentionally embrace an ethic of reciprocity (Cook-Sather & Felten, 2017, in press) productively exploit the potential of digital media both to create spaces that support democratic practices and to link people within those spaces who can engage in those practices.
Digital media have unique potential to amplify student voices, support dialogue and partnership between students and teachers, and inform educational practice because of their capacity to facilitate the linking of people and contexts that would otherwise likely remain separate and because they enable the capture of exchanges that take place between differently positioned people. Because they take virtual forms that link differently positioned people across time and space and both evoke the presence and equalize the power of those in dialogue through those forms, digital media facilitate the blurring of responsibilities traditionally assigned to particular roles such as teacher and student, and through doing so they reinforce the human relationships that underpin deep teaching and learning while simultaneously challenging conventions regarding the limitations of a student’s ability to “teach” or a teacher’s ability to “learn.” Digital media can overcome geographical, logistical and, as importantly, psychological barriers, leveling power differences in particular, because they are rooted in the person-to-person relationships of real live people teaching and learning together. As each of the three examples included in this discussion illustrates, herein lies the deep link between the virtual and the actual.

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Statements on open data, ethics and conflict of interest
a. Original data I used in writing articles are not accessible because, through the IRB process through which this research was approved, the data are to remain confidential. My own and others’ publications on which I draw for this discussion are accessible and listed under “References” below.
b. This article draws on data gathered with the approval of Bryn Mawr College’s IRB.
Except in the case of published essays, no names or other identifying information is included, in accordance with the terms of the consent form participants signed.
c. There is no conflict of interest.

**References**


Cook-Sather, A. (2011). Teaching and learning together: College faculty and undergraduates co-create a professional development model. In J. E. Miller & J. E. Groccia (Eds.), *To
http://repository.brynmawr.edu/tlthe/vol1/iss6/4/