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Mentorship Modes: Strategies for Influencing Interactive Learners

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Abstract

In the age of the Internet, students are clamoring for immersive and participatory learning experiences, but how can teachers share autonomy without losing control of their classrooms? In an effort to address this important question, this article suggests three mentorship modes that educators can employ in order to effectively engage with today's interactive learners. Lecture-based instruction is a single mode form of teaching in which information is disseminated by a lone authority-figure. In contrast, learning-centered mentorship is a three-mode process in which autonomy is shared and authority flows in multiple directions at once: bottom-up (modeling), laterally (collaborating), and top-down (organizing and supervising). This work draws on research and theories related to student-centered pedagogy, as well as the trial and error experimentation of the author and interviews with successful participatory educators working at Tribeca Flashpoint Media Arts Academy in Chicago, a school devoted almost exclusively to problem-based and project-based learning.

Keywords: problem-based learning, project-based learning, mentorship modes, learning-centered pedagogy, scaffolding

Mentorship Modes: Strategies for Influencing Interactive Learners

We want students to be independent (as long as they follow instructions). We want students to think critically (as long as they don't criticize us). We want students to innovate (as long as they don't invent new ways to revolt). As committed educators, we want the best from those we teach, but when interactive learners actually step into the driver's seat and take charge of their own education, it can be rather unsettling. While attempting to teach bored and apathetic students is difficult, teaching students who *actually care* can be even more challenging. Our students must be allowed to self-organize, innovate and solve problems, yet these are exactly the behaviors that can—and should—radically alter the classroom power dynamic. Because of this, teachers need new strategies for engaging with a new type of learner.

The first generation coming of age with no memory of life before the Internet is changing the way we teach. In recent years, scores of books and hundreds of journal articles have focused on participatory and interactive education. Terms for these pedagogical approaches include "inquiry based learning" (Alvarado & Herr, 2003), "student centered learning" (Robinson, 2011), "learning-centered teaching" (Blumberg, 2009; Doyle, 2011), "collaborative learning" (Barkley, Cross, & Major, 2004), "team based learning" (Michaelsen, Knight, & Fink, 2004), "social learning" (Bingham & Conner, 2010), "situated learning" (Gee, 2004), "quest-based learning" (Prensky, 2010), and most recently, "the flipped classroom" (Bergmann & Sams, 2012). Sometimes these terms are used interchangeably. Sometimes scholars make fine-grained distinctions between them, but in recent years, two terms in particular have gained wide spread acceptance: "problem-based learning" (Barrows & Tamblyn, 1980) and "project-based learning" (Smith & Dodds, 1997), both commonly referred to by the acronym PBL.

According to Prensky (2010), both project-based learning and problem-based learning are forms of learner-centered pedagogy. They each involve long-term tasks centering on an overarching unit of study, related to curricular content and tied to self-directed action. There are, however, key differences. Project-based learning (sometimes called collaborative project-based learning or CPBL) starts with an end product in mind, and follows the production model through planning, researching, first draft, rewrite and submission. This process requires specific content knowledge and/or skills and typically raises one or more problems which students must solve together (Bender, 2012). In contrast, problem-based learning begins with a problem for students to solve or learn more about. This inquiry model requires students to organize previous knowledge, pose additional questions, and identify areas where they need more information (Barell, 2006).

Both problem-based learning and project-based learning have been analyzed from a number of perspectives and are commonly linked to variety of educational milieus. Some scholars have written general overviews of these approaches (Bender; 2012). Some have

envisioned learning projects for different grade levels, including preschool (MacDonell, 2006), grade school (Hassard, 2007), middle school (Schlemmer & Schlemmer, 2007), high school (Markham, Larmer, & Ravitz, 2003) and college (Kezar & Lester, 2009). Some have designed PBL curriculum for specific disciplines, such as math (Muschla & Muschla, 2006), science (Ronis, 2007), or gifted programs (Stanley, 2011). Some have related these approaches to e-learning (Lynch & Roecker, 2007) and library research (Wallace & Husid, 2011). Some have discussed PBL in terms of business applications (Smith & Dodds, 1997), corporate team building (Atkinson, 2001) and community outreach (Mondal & Dutta, 2007).

Although these applications are highly diverse, they *do* share certain core assumptions. For instance, many problem-based learning advocates argue that when students learn by observation, imitation, interaction, and guided practice, they cultivate the type of higher cognitive skills that equip them to excel in the design-oriented economies of the 21st century (Trilling & Fadel, 2009). And some of these claims are supported by scientific research. For instance, results from 972 colleges and universities surveying more than 844,000 students led National Survey of Student Engagement ([NSSE], 2005) researchers to develop five benchmarks of effective educational practices, all of which are consistent with PBL. They are: raising the level of academic challenge, using active and collaborative learning, fostering meaningful student-faculty interactions, creating enriching educational experiences, and establishing a supportive campus environment (NSSE, 2005). Connecting these benchmarks to interactive learning, Bloomberg (2009) explains that they involve students learning to acquire knowledge, develop self-awareness and improve communication skills (p. 11). Moreover, the National Science Foundation (NSF) sees many *disadvantages* to instructor-centered approaches. These include graduates unprepared to solve real-world problems and lack of skills and motivation to continue to learn beyond their formal education (Springer, Stanne, & Donovan, 1999).

Despite these compelling reasons to embrace PBL, many teachers remain wary of the approach. As Blumberg (2009) points out, learning centered teaching involves a shift in the balance of power so that “the instructor shares some decisions about the course with students” (p. 20). In order to encourage autonomous learning, educators must cede some degree of top-down authority (Doyle, 2011; Prensky, 2010; Weimer, 2002). Yet experienced teachers know that if their classrooms grow too chaotic, students will not be able to learn effectively. PBL can certainly foster the types of skills that allow learners to become self-sufficient, and this is a worthy long-term goal. But as Grow (1991) explains, a mentor who is too hands off or too hands on in the crucial early developmental stages may breed apathy, contempt and/or pandemonium. Advising teachers to exert less top-down authority is a useful starting point, but successfully navigating the sometimes-choppy waters of problem-based and project-based learning involves more than restraint, it requires a new type of teaching, what I call “Learning-Centered-Mentorship.”

Learning-Centered Mentorship is a three-pronged approach that allows teachers to exert influence from the bottom up, *modeling* productive behaviors laterally by *collaborating* shoulder-to-shoulder with students and top down by *organizing and supervising* productive learning environments. The pages that follow elaborate on these three mentorship modes, while drawing on examples and insights gleaned from educators at Chicago's Tribeca Flashpoint Academia, a media arts university affiliated with the Tribeca Institute in New York and devoted almost exclusively to problem-based and project-based learning.

Mode 1: Bottom-Up Mentor (Modeling)

Bottom-Up Mentoring means leading by example. Rather than merely assigning a task, the mentor demonstrates how to do it. This is what Bandura (1977) calls, "behavior modeling," an approach that educates, but also demystifies, allays fears and builds confidence. Even fairly difficult tasks seem less daunting once we have seen them successfully performed by others. The performative aspects of modeling and imitation foster meta-cognitive thinking. They allow students to view themselves as particular types of professionals operating in relation to a particular type of discursive field, one that they can compare and contrast with other fields, gauging what counts as legitimacy in each. For instance, they might learn how thinking and acting like a journalist differs from thinking and acting like a novelist. According to Gee (2004), this type of "situated learning" requires a combination of intuition and analysis, the ability to make conceptual leaps and then step back to consider whether or not they make sense in relation to a particular field of practice.

Teaching film direction provides a unique challenge for media arts instructor Killian Heilsberg. As the job title suggests, an effective "director" must do more than follow instructions. Because of this, Heilsberg does not *direct* her directing students. Instead she demonstrates how they can learn to trust their own instincts. This means each class that Heilsberg teaches is something fresh, original and often highly unpredictable. Case in point: the scene being mounted by her students is fairly amusing, yet she can sense that something is amiss. The actors are just standing in place delivering their lines. After the scene has been run, she gives one of the actors an "activity," instructing her to hurry about attempting to pick up the room. The trouble is, the room is not messy. So Heilsberg begins a performance of her own. She picks up several books and scatters them on the floor. The students giggle. She takes a chair and tips it over. The students laugh. She upends a vinyl bag, spilling plastic fasteners onto a table and then places it on the head of one of the actors. The students howl. Next, a student-director calls, "Action!" The actors run the scene a second time. Suddenly, it comes alive. No longer anchored to fixed spots, they move about exploring the space, playing with the possibilities of the wonderful mess their teacher has created, but something else has changed, they are now approaching the scene with the same sense of imaginative exploration that Heilsberg has demonstrated. Their deliveries

are less wooden and their actions more spontaneous, best of all, they are having fun! This is no longer a rote exercise. It has become a chance to engage in meaningful play. "Play gives us a chance to be more than we thought we could be," Heilsberg explains. "It gives us a chance to feel things we actually feel deep inside but don't want to face—like if we play at being angry, or play at being cocky, we are actually living the moment we have inside and don't dare speak."

Thomas and Brown (2011) believe that, in an era of constant change, meaningful play has become a cultural imperative for people of all ages. They state, "All systems of play are, at base, learning systems. They are ways of engaging in complicated negotiations of meaning, interaction and competition, not only for entertainment, but also for creating meaning." (p. 96–97). In elementary school, play is allowed, though only on the playground. But by middle school, it is pushed far underground by adolescents eager to appear more adult than they actually are. In today's world, however, play may not be as childish as once assumed. Adaptive challenges are now confronting people of all ages on a continual basis. Because of this, Thomas and Brown advocate reforming the education system to incorporate more meaningful play at all grade levels, not just on the playground, but in the classroom itself. So how does a mentor get a group of students who have been socialized to act like adults to act like kids again? "I guess I make the environment safe by listening to them," Heilsberg explains, "reflecting them, and starting with them as the foundation. Then we play on their terms, opening slowly to new play, but always along their pathways."

Peter Hawley is the chair of the Film + Broadcasting department at Tribeca Flashpoint Academy. As a working director, he also embodies of the type of media professional students wish to become. It's the start of the fall semester, and 182 new students are participating in an all-day project centering on a real-time animation process known as Machinima. It is a complex immersive experience, challenging them to work in the game labs, the audio booths and the edit suites, collaborating with complete strangers in a tight time frame. Except for a few missed voice-over lines, things have been going smoothly. But as the students come back from their lunch break, Hawley is informed of a technical snag. An information bottleneck has stopped the project dead in its track. There is no way the footage will be rendered in time for the students to edit in the afternoon as planned. At this point, the 182 new students begin to titter nervously, eying Hawley to see how he'll react. He doesn't. Instead, he takes a walk around the facility. He explains, "Sometimes you have to say, 'I just need ten minutes to figure out what I have to do.'" As Hawley considers the problem, he contacts the game lab for an estimated time of arrival on the rendered footage. He then reaches out other faculty members and brainstorms about juggling schedules. Next, he asks students and faculty members to assist him moving chairs from one location to another. Soon, he has completely rearranged the day's schedule. But he hasn't done it alone. Hawley explains, "What I find is, we tap into all of

our collective experience as teachers and as professionals and we think, I've somehow been in this situation one time or another and then you have to make the parallel to a previous situation and use that experience."

As Robinson (2001) points out, creative problem solving involves *both* subjective and objective processes. Far from a purely right brain activity, it involves arriving at a fortunate balance between intuition and analysis. In the hours leading up to the bottleneck, the new students were a hive of activity, rushing about, dashing off scripts and recording audio sessions in frantic bursts of enthusiasm. They made some smart decisions along the way, but they also made some careless mistakes. Now Hawley's measured response to a potential crisis has provided them with a different model for how to behave in the midst of a high-pressure production process. It is an instructive counterpart to the jittery energy of their peers, a more professional example to follow.

The modeling techniques discussed above are examples of how teachers can lead by example. They exemplify a wide range of approaches, from spontaneous improvisation to reflective analysis. According to Schön (1984), creative professionals do not exclusively gravitate toward either theory or practice. Instead, they continuously oscillate between both mindsets, acting as reflective practitioners. Thus, students tasked with emulating creative professionals need mentors who are willing to take creative risks, but who also carefully analyze outcomes and calculate new strategies. Modeling, therefore, involves both creating and critiquing while providing students with an array of productive behaviors to emulate.

Mode 2: Lateral Mentor (Collaborating)

Because he wants students to challenge themselves, Game Design instructor Billy Carton resists jumping to conclusions about what they are or are not capable of achieving. In fact, he acknowledges that they "may have some justification for feeling beaten down." He also resists viewing himself as the person imparting skills. Instead, he insists that he is merely helping them cultivate and refine what they already have. This type of acknowledgment helps him unlock the type of intrinsic motivations that make a project or an entire classroom come to life. Ideally, this approach can allow student-mentors to emerge organically, so that more peer-to-peer learning can occur. In a highly collaborative environment, students learn from each other as much as their teacher. This can seem a bit odd at first, but it is actually a sign of success. As Carton explains, "The less energy I have to put into getting them excited about working, then the better I am at my job."

Yet while Carton does not browbeat his students into collaborating, he *does* allow peer pressure to do the heavy lifting for him. For instance, two students have failed to show up for a group presentation. The next class period, Carton tells them, "You owe your team an apology. Before you even talk to me, you need to apologize to your team. You made

them flounder. Don't do that!" As he recalls the incident, he chuckles, but he is serious about the larger point. "I tried to emphasize to them, 'You didn't hurt my feelings by not showing up, but these guys got a bit embarrassed. They weren't fully prepared. When I asked them where you were, they had no explanation. They felt accountable to you. Did you feel accountable to them?'" As this question sinks in, he clarifies the consequences of their actions, "If this continues to happen, people are going to gravitate away from you. They are going to feel annoyed or uncomfortable if they are put on a team with you." By shifting the focus off of him and onto the team and its relationship to the two slacking students, Carton has created a stronger argument. He elaborates, "They feel much guiltier about letting their team down than they do about letting me down, and I think that's good. That's important." As Rheingold (2002) explains, "At the core of collective action is reputation—the histories each of us pull behind us that others routinely inspect to decide our value for everything from conversation partners to mortgage risks" (p. xix).

Encouraging students to be more cooperative is one way of improving the collaborative dynamic. But the mentor may also encourage them to compete, or at least allow this to occur organically. Directing instructor J. Paul Preseault explains, "I don't try to, in any overt way, make my class competitive with one another. I think that happens enough when they're delivering projects in front of each other because they know when somebody's kicking butt and they know when somebody's slacking, so I don't think I need to set into motion anything like, 'somebody's going to get extra credit,' because I think what should be motivating them is to be striving for excellence, and they know it. . . . When I talk about competition, it's usually about something outside of the class. 'Do you want your film to be something that, a year from now, you're embarrassed to show? If you answer that negatively, then we need to keep working hard.'" Effective mentors insist on professionalism, but also tolerate and even encourage differences of opinion, within reason. "We want them to be strong." Preseault asserts, "Having a strong opinion is good, and I *do* try to tell them that, but you'd better be able to back it up."

Because the most innovative groups are highly diverse and the developmental levels of individual stakeholders are in constant flux, there can be no one-size-fits-all approach to effectively managing collaboration. J. Paul Preseault finds that a particular approach may work for one group, but when he tries to repeat this strategy with another class, he finds, "They're responding differently. It's not that they're *not* into it. They're just not responding in the same way. So you end up showing a different film, or you end up doing a different exercise that lends itself to that dynamic. I feel that you should be improvising. As an instructor, you should be listening and modifying and collaborating."

Fortunately, coordinating collaboration has never been easier. Wikis, online forums, social media groups and other malleable publishing platforms, or "living content tools" allow teams to capture, organize, share, and use their emerging knowledge (Bingham & Conner, 2010). This means they can more effectively leverage collective knowledge

and insight in order to form dynamic participatory cultures (Jenkins, 2009). The forms of collaboration discussed in this section range from both competitive and cooperative behaviors. Learning-centered mentors need to strike an effective balance between these approaches to foster intellectual development and avoid the pitfalls of stultifying conformity or unmanageable chaos. We must also constantly modify our teaching techniques to compliment the developmental needs of the entire class and its individual stakeholders.

Mode 3: Top-Down Mentor (Organizing and Supervising)

In addition to delivering instructions, mentors need to ask guiding questions. This is critical because our minds store information in a different way when they solve a problem than when they passively receive information (Sawyer, 2007). According to Prensky (2010), most textbooks get it backwards. Their chapters convey large amounts of information and then list questions at the end. He believes educators should reverse this process, putting questions up front, which will motivate students to reach for the answers and discover them through a process of systematic inquiry. Adopting this approach means expecting students to add things up.

Case in point: One of Bill Baykan's Production students is frustrated. A member of his creative team has not been showing up at meetings and has been ignoring his texts and emails. He wants to know what to do next. Considering the problem, Baykan arrives at a workable solution, yet he resists sharing it. Instead he asks, "What do you think will happen if he doesn't show up on the day of the shoot?"

The student replies, "I'll be screwed. I'm relying on him."

"But you say he's unreliable."

"Yeah, sure, but . . . do you think I should get another person as a backup?"

"That might be one way of handling things."

"Yeah, maybe I need to get someone else to help out, but who can I trust?"

"That's a good question."

Baykan's approach reveals that some of the most effective top down guidance is less about the transmission of information and more about the promotion of effective inquiry. When he resists connecting the dots for students, he sets the stage for a more meaningful learning experience. He knows that they cannot become creative problem solvers if he

solves their problems for them. Thus, he resists providing answers and instead, poses the types of questions that he hopes they will soon begin asking themselves. As Bain points out, "People learn most effectively when they are trying to answer their own questions" (2004, p. 101).

"I don't think it's my job to tell them what to do," says Baykan. "I think it's counterproductive. . . . If I can get them to start clarifying it for me, then maybe they're clarifying it for themselves." In an effort to define this somewhat intuitive approach, he explains, "You keep getting at the edges and asking questions, sort of sculpting it a little. I feel that what we do is . . . they're going downhill. They have all the energy. They're off and racing and we can provide the guard rails so they don't go off the road, so it's more guidance than anything."

This is not to suggest that supervising interactive learners is easy. Learning-centered mentorship involves a host of complex variables, so many things can *and will* go wrong. Therefore, students need to feel, safe and supported, but also accountable. As mother of triplets, Production teacher Amy Rising knows a lot about managing complexity. She says, "I find that working in this fashion is very much like parenting. Here's the line. If you cross it, here's the consequence." Rising believes that professional standards are important, and she strives to maintain them, but she also knows that students are sometimes overwhelmed by events beyond their control. What's more, she knows that creative projects require more managerial latitude than learning tasks that involve rote memorization.

According to Brown and Eisenhardt (1997), successful innovation occurs at the edge of chaos. Therefore, the challenge for mentors overseeing creative projects is to design guidelines that are not too rigid to prevent emergent innovation, but not too loose to invite pandemonium. Rising avoids being too unyielding or too permissive by creating alternative forms of accountability. "I build in flexibility right away," she explains. "To the first class, I say, 'If you are going to be late with a project because something happened, if you come to me before that class, if you send me an email before class and say, 'I need an extension,' I will give you that extension. But if you come to me after that project was due or if you come to me in class the day the project is due, I will *not* give you the extension.' So I've already set up a way for them to breathe within these boundaries, but I've also given them another boundary to work in."

In addition to keep students on task, Rising motivates them with opportunities for increased autonomy. But for each new freedom she grants, she expects a higher level of accountability. "Right away, I let them try to fly," she says. "Right away! Because at first, it doesn't matter if their project is good or bad as long as they are trying to figure things out. And that holds them accountable for it." Voicing an idea that lecture-based instructors may find counterintuitive, she adds, "It's almost, the less I give them, the more they learn." Rising also makes it clear that if students refuse to take ownership of their learning, they will be relegated to positions of lower responsibility. "The students know if they're not stepping up to the plate, I'll take 'em off, and they'll get to be a [production assistant] for

everybody's shoot, and they won't get to be a [director of photography], and they won't get to be a producer, or an [assistant director]. They won't get to be in those top spots. I'll move them."

As Director of Academic Assistance, Adrienne Lentz knows that students need guidance as well as guidelines. She explains, "One of the things I hear from every single writing lab student, the ones who are having serious difficulties—no one has ever sat down with them and said, 'This is what you did wrong and this is how you correct it.' And so these students get papers handed back to them, all marked up in red, but they don't know how to correct it." Lentz takes a different approach. She sits side-by-side with students going over their work, word by word, reading it out loud to them and prompting them to untangle trouble spots and to identify recurring patterns. "The more feedback you give a student," she says, "the better chance they have of improving."

The examples of organizing and supervising cited above touch on the many different ways that learning-centered mentors can continue exerting top-down influence without resorting to rote instruction. We first create an environment where real learning can occur. Next, we guide the developmental processes emerging within that environment by fostering self-reflection and personal accountability and providing copious amounts of immediate feedback.

Discussion

As Weimer (2002) asserts, embracing the learning-centered paradigm *does* involve a shift of power from teachers to students, but this change also requires learning-centered mentors to cultivate new modes of influence. Many educational theorists (e.g., Barell, 2006; Bender, 2012; King, 1993; Prensky, 2010; Weimer, 2002) suggest practical strategies that learning-centered mentors can employ while transitioning from the "sage on the stage" to the "guide on the side." But these best practices operate in different ways according to different modes of influence. By considering how these mentorships interrelate, we get a clearer sense of how they consciously and unconsciously influence interactive learners. For instance, when we collaborate with students, we are also modeling effective collaboration and supervising the very process of collaboration we are participating in. The degree to which we deliberately emphasize specific aspects of these roles will influence what our students ultimately glean from the experience.

Becoming an effective learning-centered mentor means replacing pat formulas with a tool kit of interchangeable context-dependent strategies. It means recognizing that striking the appropriate balance between accepting too much and too little accountability, or sharing too much or too little autonomy is liable to be an ongoing and ultimately irresolvable struggle. Thus some degree of improvisation and customization is inevitable and in fact, desirable. Ultimately, the best approach may be realizing that there is no best

approach. Thankfully, by drawing on the insights and examples of innovative educators, we may begin to safely transition away from primarily top-down lecturing to the three key mentorship modes. In so doing, we can discover hidden talents in our students and in our selves and begin reinventing the education system in the place where it lives and breathes: our classrooms.

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