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Health Educ Behav 2012 39: 259 originally published online 6 May 2011
DOI: 10.1177/1090198111399756

Health Education & Behavior
39(3) 259–267

DOI: 10.1177/1090198111399756
http://heb.sagepub.com

Sex Educators and Self-Efficacy: Toward a Taxonomy of Enactive Mastery Experiences

Robin E. Jensen, PhD[1]

Abstract

Enactive mastery experiences have been identified as the most influential source of self-efficacy beliefs. Yet little is known about enactive mastery experiences, including how such experiences manifest in naturally occurring situations (as opposed to simulated situations). This study draws from semistructured interviews ($N = 50$) with sex educators working in public secondary schools throughout Indiana to explicate distinct categories of enactive mastery experiences. Three types of enactive mastery experiences—growth, interactive, and endorsed—emerged from the data and are delineated. This formative taxonomy provides detailed targets for those working to foster individuals' perceived self-efficacy in a variety of contexts, including the health education classroom.

Keywords

enactive mastery experiences, health communications, health promotion, qualitative methods, school-based health, self-efficacy, training health professionals

According to social cognitive theory (SCT), people's actions are the result of a complex interplay among personal, environmental, and behavioral factors (Bandura, 1986a). SCT posits that how individuals think about their environment and behaviors is just as important as the environment and behaviors themselves if they are to behave in ways that contribute to the achievement of their goals (Baranowski, Perry, & Parcel, 2002). From this perspective, self-efficacy—belief "in one's capabilities to organize and execute the courses of action required to produce given attainments"—is an influential factor in assessing the likelihood that a person will enact a specific course of action (Bandura, 1997a, p. 3). Those who believe they can successfully accomplish a goal (e.g., teach students about the importance of condom use) also tend to be more motivated to behave in ways that contribute to goal accomplishment (e.g., engage in classroom discussions about how condom use can reduce sexually transmitted infections and unintended pregnancies). In addition, individuals with stronger perceived self-efficacy tend to persevere longer and dedicate more effort toward completing a task, whereas those with weaker perceived self-efficacy are more likely to approach intimidating situations with anxiety or to avoid them entirely (Bandura, 1986b; Seo & Ilies, 2009).

Researchers have successfully used self-efficacy to predict voluntary behaviors that seldom involve negotiation with another individual (e.g., fruit and vegetable consumption; Geller & Dzewaltowski, 2009), voluntary behaviors that should involve negotiation with another individual (e.g., condom use with a sexual partner; Lwin, Stanaland, & Chan, 2010), and less than completely voluntary behaviors that may involve negotiation with another individual (e.g., smoking among adolescents; Van Zundert, Ferguson, Shiffman, & Engels, 2010). Thus, a central question in health education research is how to increase perceived self-efficacy among those working to engage themselves and others in healthy behaviors. More specifically, one might ask how to increase health educators' perceived self-efficacy so that they can better teach their students to perform healthy behaviors, especially because research demonstrates the important role that self-efficacy plays in educators' effectiveness via student outcomes (Ashton, 1984; Caprara, Barbaranelli, Steca, & Malone, 2006; Ross, 1992). Bandura (1977, 1997a) identified enactive mastery experiences (also known as performance accomplishments) as the most influential source of self-efficacy. Yet he offered only a vague description of the enactive mastery experience, using the construct's title as its definition and implying that a mastery experience is a situation in which individuals feel that they demonstrated mastery in completing a task. Although researchers have studied the impact of simulated mastery experiences on perceived self-efficacy (Bandura,

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Adams, & Beyer, 1997; Ozer & Bandura, 1990), researchers have yet to study what Bandura (1977) described as an authentic mastery experience.

The aim of the present study is to identify authentic mastery experiences that sex educators reported as salient to establishing success in the classroom. Sex educators are responsible for teaching students to enact healthy behaviors, and their success in accomplishing this goal depends on their perceived self-efficacy in the classroom (Buston, Wight, Hart, & Scott, 2002; Constantine, Slater, & Carroll, 2007; Scales & Kirby, 1983). Research demonstrates that, for sex educators in particular, success in the classroom tends to depend on their development of an authentic communication style, willingness to integrate timely and youth-oriented classroom materials, and adoption of a clear stance on what topics should be covered (Allen, 2009; Landry, Darroch, Singh, & Higgins, 2003; O'Higgins-Norman, 2009). In an effort to assess how sex educators experienced and described naturally occurring mastery experiences in the classroom (and thereby gained confidence in enacting behaviors they associated with success), the author conducted semi-structured interviews ($N = 50$) with sex educators employed throughout the state of Indiana in public secondary schools. The research is guided by constant-comparative analytical methodology because qualitative research methods have proven to be especially useful in delineating types of theoretical constructs (Goldsmith & Baxter, 1996; Martin, Stone, Scott, & Brashers, 2010).

The remaining sections of the study offer, first, a review of research on sexual health and self-efficacy; second, a discussion of the study's methodology; and, third, a delineation of the findings in terms of three categories of enactive mastery experiences. The final section demarcates implications of this formative typology for scholars of self-efficacy and sexual-health promotion as well as for health education practitioners.

Sexual Health and Self-Efficacy

U.S. researchers have conducted an increasing number of studies to identify factors that contribute to the elevated rates of sexually transmitted infections (STIs), adolescent pregnancies, and abortions. Despite vast resources dedicated to establishing a level of sexual health in the United States, these rates remain among the largest in the industrialized world (Centers for Disease Control and Prevention, 2010; Guttmacher Institute, 2002). Some sexual-health researchers have drawn from Bandura's (1977, 1997a) discussion of self-efficacy to better understand and address the country's sexual-health inadequacies. Such research builds from scholarship positioning perceived self-efficacy as central to the adoption and maintenance of healthy behaviors (Bandura, 2005; Bastone & Kerns, 1995; Maibach, Flora, & Nass, 1991). Several studies have focused on the value of fostering self-efficacy among sex-education students in particular. For instance, Kasen, Vaughan, and Walter (1992) found that students with a stronger sense of perceived self-efficacy were more likely to comply with safer sex recommendations (see also Mattson, 1999). More recently, Kennett, Humphreys, and Patchell (2009) drew from their findings about skills needed to handle unwanted sexual advances to advocate that sexuality-education courses work to foster sexual self-efficacy among students. But despite these studies on the value of self-efficacy among sex education *students*, an exhaustive literature review revealed that no research has explored how sex education *teachers* experience or develop perceived self-efficacy and teach students how to behave in ways that foster sexual health. This is surprising because teachers with strong perceived self-efficacy are more likely to teach in ways that motivate students and encourage their cognitive development (e.g., via developing an authentic communication style, using recent and youth-oriented examples, adopting a clear stance on what topics should be covered; Ashton & Webb, 1986; Bray-Clark & Bates, 2003; Ross, 1992). In this respect, existing research implies that one way to improve sexual health among young people is to better understand and then work to foster perceived self-efficacy among sex education teachers.

Enactive Mastery Experiences

Bandura (1977, 1997a) delineated four key sources of perceived self-efficacy. These include enactive mastery experiences, vicarious experiences, verbal persuasion, and physiological and affective states. He identified the first of these, enactive mastery experiences, as the most influential because they offer individuals an embodied sense of success that they can draw from when negotiating future tasks. Three major definitional elements can be inferred from Bandura's work on enactive mastery experiences: (a) nonsimulated, singular events in which (b) an individual or collective directly experiences a sense of success in performing an action that is (c) believed to contribute to the attainment of an overarching immediate or long-term goal. For example, sex education teachers might have an enactive mastery experience when they lead a classroom discussion on the benefits of condom use and believe that the discussion itself effectively encouraged students to use condoms. Any experience like this one in which individuals enact behaviors that they deems successful may become a source of perceived self-efficacy because they can draw from the memory of having personally experienced mastery—without direct, immediate guidance from others—when thinking about whether they will be successful in the future. Conversely, individuals who only witnessed someone else lead such a discussion, or who were guided through the process of leading such a discussion, would not have had an enactive mastery experience because they did not demonstrate to themselves that they could perform the task on their own. It should be noted, however, that having an enactive mastery experience does not preclude the possibility that individuals had training or guidance from others prior to the mastery experience. The enactive mastery experience involves a nonsimulated situation in which

individuals behave *in that moment* on their own and do so in a way that they personally deem successful.

Although research has attempted to estimate the power of the enactive mastery experience through simulation (Bandura et al., 1997; Ozer & Bandura, 1990), Bandura (1977, 1997a) argued that simulated experiences (e.g., a condom negotiation exercise that partners engage in for an HIV/AIDS prevention intervention) are not the stuff of enactive mastery experiences (e.g., individuals successfully negotiating condom use before sexual activity). Instead, simulated mastery experiences function more as vicarious experiences because, although they are meant to be *like* an authentic, naturally occurring test of skills, they are only ever an imitation. Simulated experiences do not serve as direct proof that actors can repeat what was accomplished and are thus not as influential as naturally occurring mastery experiences in contributing to perceived self-efficacy. By contrast, the direct performance that occurs in an authentic mastery experience may offer actors proof "of whether one can muster whatever it takes to succeed" (Bandura, 1997b).

In addition, Bandura (1997a) drew from the tenets of SCT to warn that empirical successes function as enactive mastery experiences *only* when actors interpret those experiences as successes (i.e., when individuals see themselves—rather than external others—as the locus of control for their mastery; Wallston, Wallston, Kaplan, & Maides, 1976). What may appear to outsiders as a success is only a mastery experience if actors believe that what they accomplished was mastery. Beyond this warning, existing research provides few clues about how enactive mastery experiences are described by actors or whether there exist different categories of such experiences (although there are several studies that vaguely discuss guided—and thus simulated rather than authentic—mastery experiences; Bandura, 1999; Jones, Bray, Mace, MacRae, & Stockbridge, 2002). Therefore, little is also known about how one might go about invoking enactive mastery experiences and thereby fostering self-efficacy. The present study aims to address this gap in knowledge by developing a formative taxonomy of enactive mastery experiences derived from interviews with sex educators. The following research questions guide the analysis:

Research Question 1: How do sex educators describe their enactive mastery experiences in the classroom?

Research Question 2: What are the components of specific types of enactive mastery experiences?

Method

Participants

A total of 50 sex educators employed throughout the state of Indiana in public secondary schools participated in this study. In all, 37 participants identified as female, and 13 identified as males. They ranged in age from 23 to 65 years ($M = 40.68$, $SD = 12.38$). All participants identified as White or Caucasian, which is representative for the state as a whole where, for the 2008-2009 academic year (the year in which the research was conducted), 95% of public school teachers were White (K. Lane, personal communication, April 28, 2009). In terms of education, 20 participants had a bachelor's degree and 30 had a master's degree. Overall, 19 participants received formal training as sex educators when they were undergraduates; 31 participants did not receive formal training. Training for those who received it ranged from one college-level class that delineated how to instruct a sex education course to a series of up to four college-level classes that discussed how to instruct a sex education course. Teachers had received their training from 1 to 40 years ago ($M = 17.94$, $SD = 13.18$). In total, 27 participants worked in junior high schools, 22 worked in high schools, and 1 worked in a school that served both junior high and high school students (for further demographic information, see Table 1).

Table 1. Demographics

Characteristic	*n* (%)
Age (years)	
23-29	11 (22)
30-39	10 (20)
40-49	11 (22)
50-59	14 (28)
60+	4 (8)
Gender	
Female	37 (74)
Male	13 (26)
Academic specialty	
Health and physical education	34 (68)
Education	10 (20)
Health science	6 (12)
Social work/counseling	2 (4)
Years of teaching experience	
30-40	13 (26)
20-29	12 (24)
10-19	10 (20)
1-9	15 (30)
Sex education curriculum	
Abstinence-only	29 (58)
Abstinence-plus	18 (36)
Comprehensive	3 (6)

Procedure

After receiving institutional review board approval, the author visited a state Department of Education (DOE) website and collected contact information for public middle and high school teachers designated as health and/or sex educators. Participants were recruited for the study via an email message or, if no email address was available, a formal letter was sent through the mail that described the study, listed the questions that interviewees would be asked, and invited them to participate. Interested teachers were instructed to contact the researcher to set up an

interview time. At least one teacher was contacted for half of the 670 schools listed on the DOE website (every other school was contacted in alphabetical order), and 400 teachers were contacted in total (if more than one sex education teacher was listed for a selected school, all of the sex education teachers at that school were contacted). In total, 363 recruitment emails and 37 letters were delivered. Of the 50 participants in the study, 47 were recruited via email and 3—all of whom taught in urban schools populated largely by low-income students—were recruited via letters. Recruitment continued until a maximum variation sample, which "taps into a wide range of qualities, attributes, situations, or incidents within the boundaries of the research problem," was generated (Lindlof & Taylor, 2002, p. 123). At 50 interviews, the study had generated participants who taught in a diversity of locations throughout the state, both urban and rural schools, middle and high schools, men and women, and a range of ages and sex education training.

Data for this study were collected using semistructured telephone interviews. This format provided the flexibility to allow for alterations in questions according to the unique nature of each participant's experiences and still offered a level of structural similarity across interviews (Corbin & Strauss, 2008). Conducting interviews via telephone allowed the author to accommodate the life circumstances of participating secondary school teachers. Many teachers in the sample coached multiple sports and thus could not always anticipate when they would be available for an interview. Telephone interviews enabled them to call the author at their convenience and participate in the study during breaks in their schedules. All 50 participants were able to complete the interviews according to the authors' specifications.

The author conducted all interviews. At the beginning of each interview, the author read and discussed the informed consent agreement with participants before obtaining their verbal consent. Participants were asked a short battery of demographic questions (e.g., gender, race/ethnicity, age). Then they were asked a series of open-ended questions about their experiences teaching sex education. The interview protocol included specific inquiries about (a) their training and job history (e.g., did you receive any formal training to teach sex education?), (b) their information-seeking behaviors (e.g., if you need to get information about teaching sex education, what do you do?), (c) the sex education curriculum they used (e.g., can you describe the curriculum that you use in the sex education classroom?), and (d) their perceived self-efficacy in the classroom. Perceived self-efficacy was operationalized via questions about whether participants generally felt they would be able to successfully communicate sex education messages to their students. These questions were followed up with inquiries asking them to describe specific situations in which they felt they were being successful when teaching sex education. Each participant's discussion of their enactive mastery experiences depended on their sense of what being successful was for a teacher of sex education. Although participants were not asked this question explicitly, the majority of the interviewees seemed to believe that success was tied to outcomes such as student sexual health and/or students thinking critically about their sexual behaviors. Thus, participants' performances of mastery depended on their assumptions that the experience influenced students in these ways. Interviewees received a $20 gift certificate in the mail for their participation. Interviews ranged from 20 to 60 minutes in length with a mean interview length of 40.94 minutes (SD = 10.14). They were audio-taped and transcribed verbatim.

Analysis

The analysis was guided by constant-comparative techniques, which involve an ongoing, iterative process of several key analytical steps (Corbin & Strauss, 2008). First, during and directly after each interview the author wrote open field notes and memos about interview content, emerging theoretical constructs, and potential relationships and themes among interviews (Lincoln & Guba, 1985). Second, once the interviews were transcribed, the author double-checked them for validity. Third, all of the transcripts were read in their entirety, as were associated memos and field notes, before the author engaged in multiple rounds of open-coding. Open-coding involved (a) generating a list of emerging theoretical categories and accompanying examples from each interview; (b) comparing each interview's content to the list and altering the list to group reoccurring themes together; and (c) delineating, via continued comparison, clear definitions for each of the salient themes and identifying examples of those themes in each interview.

At that point, the author decided to focus the analysis specifically on teachers' descriptions of their perceived self-efficacy in the classroom. With perceived self-efficacy and enactive mastery experiences functioning as sensitizing constructs, the author generated research questions and engaged in axial coding to continue developing emerging categories (Corbin & Strauss, 2008). Enactive mastery experience descriptions in each interview were identified as any discussion about direct experiences with a sense of success or mastery while teaching sex education. After dominant types of enactive mastery experiences were identified and defined, each individual mastery experience description was coded accordingly. Throughout the manuscript, pseudonyms are used to protect participants' anonymity.

Results

Out of the 50 interviewees, 10 described no enactive mastery experiences, 32 described having one type of enactive mastery experience, 8 described having two different types of enactive mastery experiences, and no one described having more than one of the same type of enactive mastery experience. Of the 10 individuals who described no mastery experiences, they represented a mix of demographic characteristics, although 9 of the 10 participants were women. Three major types of

enactive mastery experiences emerged from the data—growth, interactive, and endorsed.

Growth Experiences

Ten teachers in the sample (only three of whom had received any formal training in teaching sex education) described having had a growth experience. The growth experience involved a situation in which individuals believed that mastery was facilitated via learning that occurred during one or more earlier experiences. Participant responses demonstrated that they evaluated these earlier experiences as positive teaching moments (but not as examples of teaching mastery) or as examples of teaching failures when they first transpired; over time, however, participants started to interpret these experiences as opportunities for learning that were needed to initiate the later mastery experience. Many participants who described having had growth experiences made explicit mention of a passage of time between earlier teaching attempts and the more recent enactive mastery experience. For instance, Greg—a 30-year-old junior high school health instructor—explained that his feeling of mastery in a recent teaching situation would not have been possible without first having several years of experience in the classroom. He noted that

> just coming with experience after you've taught [sex education] a couple years you know what to do. And I don't really feel that I have a lot of the problems or fears that I can see first or second year teachers [having].

Greg identified several individual learning moments in his early years of teaching that were decidedly not mastery experiences but that functioned, first, to provide him with general teaching confidence, and second, to build the foundation necessary for his later mastery experience.

Other teachers who described growth experiences used a narrative structure that began with a discussion about what they used to do in the classroom (and how that proved to be inadequate) and what they learned from those past experiences. Then they transitioned into a description of what they did differently as a result and how the new method made them feel as if a teaching attempt was successful. Lori—a 63-year-old high school health teacher—recalled that, in her early years of teaching, she did not encourage students to engage with the material on sex in a personal or opinionated way, and, as a result, she did not have any sense that the students were comprehending her lessons. Over time, she tried to alleviate this problem by introducing a writing assignment in which students were instructed to relate the materials to their own lives. This assignment seemed to help students engage with the materials and ultimately convinced Lori to change her perspective on teaching sex education. She explained, "Now, I let them have their opinion." Lori went on to describe a recent mastery experience she had in class in which she integrated elements of the writing activity into a discussion of sexual abstinence and focused on not "sit[ting] in judgment of" student experiences and opinions.

But not every growth experience discussed by participants was predicated on past failures. Some experiences were grounded in individuals simply gaining a better sense of their audiences via defining moments in their earlier teaching careers. For example, Karen—a 48-year-old high school health instructor—explained how, in one situation, she shared stories that were particularly "captivating" to her students because they were based on "kids who have talked to me [about their sexual questions and experiences] over the course of 25 years [of teaching]. Those things I think tend to work because they know they're real life." Karen established her credibility with current students, and thus her sense that she was being successful in teaching them about sexual health, but citing the "real stories" of past students. She was like the majority of participants who offered descriptions of growth experiences in that she did not have any formal training in teaching sex education. Karen may have found growth experiences salient to her career because she had to do so much of her learning on the job.

Interactive Experiences

A total of 18 participants (12 of whom had a master's degree and thus were slightly more educated than the sample as a whole) described interactive experiences in which the mastery of a situation depended on interaction with other people. An interactive mastery experience first involved an individual inviting (often implicitly) one or more persons to participate in an action and work together with that individual toward a goal. The experience was deemed a success by the individual when all parties played agreed-upon roles and interacted in ways that the initiating actor perceived as working toward a goal. For those in the present sample, interactive mastery experiences transpired in classroom situations with students acting as co-constructers of success. The experience was perceived as successful primarily because of the interaction among teacher and students. Mike—a 36-year-old high school health instructor—offered an example of such an experience, recalling,

> And what was really interesting, I opened [the discussion] up and I kind of almost showed a sense of embarrassment in front of the kids and I said I can't believe I'm about to share what I'm about to share with you. And now they're all curious, and I said, I just don't know. And then I go on to say that another teacher in the building said I really need to [discuss this topic] and this is why. And I explained to them about her having conversations with students in the morning about this. And so I said, you know what, we're here to learn and if this is something that is a question out there that another colleague of mine really thinks needs to be addressed, I'll address it. So now everybody's on the edge of their seats.

Mike began his description of the experience with his implicit invitation for students to play a part in his narrative (i.e., he opened the discussion up to them). His sense that he was ultimately successful depended on the students' growing anticipation about what he was getting ready to discuss, as well as their identification with and sympathy for his apparent and very real embarrassment. If the students had not interacted with Mike in these ways, he may not have deemed the situation an experience in which he felt successful.

Several teachers provided general statements about moments when they felt successful teaching sex education, noting that establishing relationships and discussions with students played a central role in their perceptions of success. Janet—a 48-year-old junior high health instructor—explained that her sense of success was "all about connecting with [students] and once you can connect with them you can teach them anything." Christina—a 23-year-old junior high health instructor—expressed a similar opinion, explaining that feeling successful in teaching sex education "was about feeling that you had a good relationship with students," and "knowing their personalities." For Janet, Christina, and Mike, student interaction with and participation in their classroom activities was a defining factor of their perceived success, and they seemed to position themselves as the major facilitators of that participation and the overall, resulting success.

In other examples of interactive experiences, however, students (rather than teachers) seemed to be perceived as facilitating what participants saw as success. Although teachers initially invited students into the interaction, they were not fully in control of the students once they accepted the invitation. For instance, Dave—a 26-year-old high school health instructor—offered a narrative of his teaching experience that implied that students had a great degree of control over whether he would deem a teaching moment successful. He explained,

> I feel that when we talk about this [sex education], the students are more engaged with this primary lesson plan that I do or this lesson that we talk about, than any other one. For some reason I might have discipline problems other times, but while we're talking about this, just because we're talking about this, it seems like everyone's in tune. And actually I get more information, you know, give it to them, and I think they absorb it more probably than any other lesson that we cover.

Dave seemed somewhat confused about why he might have had success in getting students' attention and attributed the success not to his own skill but to his students' inherent interest in the material. Although he framed himself as reciprocating the students' interest by providing them with more information than he might otherwise, he saw the students as setting the stage for his success. Dave's description of his interactive experience may provide evidence that some types of mastery experiences, particularly those in which the locus of control is attributed to someone else, contribute less to one's sense of perceived self-efficacy.

Endorsed Experiences

A total of 20 participants (14 of whom taught in middle schools and thus were slightly more likely to teach younger students than was the sample as a whole) offered descriptions of endorsed experiences in which they measured their success according to the perceived importance and appropriateness of the means they used to accomplish a goal. For sex education teachers, this generally meant that they endorsed the informational content or activity they were using and believed that it was an appropriate means for achieving their goals. Particularly for participants in the present study, endorsed experiences tended to involve a teacher believing that teaching a certain curriculum (e.g., abstinence-only-until-marriage) was the best way to help students maintain overall health. When teachers then taught the material they personally endorsed, maybe even in a manner that they endorsed (e.g., lectures; small-group discussions), they described feeling that they were being successful. Unlike the interactive experience, which depended on interaction between teacher and students, the endorsed experience was defined by the teacher's own judgments about what information students require. For instance, Roger—a 49-year-old junior high health instructor—recalled that he "always felt like I was benefiting my kids when I talked about specific methods of birth control and I gave them factual information about how they worked and more importantly how they didn't work." Roger believed he experienced mastery in the classroom when he "gave" students this specific information because

> [by] giving [students] information they could actually process and leave my room and know when it came time for them to make a choice, if it wasn't a choice about abstinence, if they weren't gonna make a choice not to have sex, if they were gonna be sexually active then I felt like the kids in my room knew, hey, here are the choices I have and here's what I know about them and I can make better decisions because of what [my teacher] talked about in class.

Roger described his endorsed experience as largely unidirectional in that he passed data on to others and was in control over the behaviors that, in his mind, made the experience masterful or not. He believed that he taught the material in such a way that the students had enough information to make reasoned decisions about their sexual choices in the future. He did not necessarily have any feedback from the students or proof that this was the case, but he judged the experience to be one of mastery in teaching nonetheless.

Other teachers who described an endorsed experience combined a priori judgments about what should be taught

with judgments they developed by interacting with students over the years (and thus their descriptions, at times, were similar to that of the growth experience). Thomas—a 50-year-old high school health instructor—recalled a successful teaching experience focusing on the menstrual cycle. He explained,

> The boys don't understand what's going on, and many times I think the girls don't really understand what's going on. And the fact that if our mothers didn't have periods, we wouldn't be here. And I tell them it will affect half the people in the world directly and the other half of us indirectly, so it's part of life and I don't know, that's the way I approach it, and I think that at least they leave the room understanding what's going on.

Thomas believed that he was successful in providing information that he felt all individuals needed to know. Because he thought that many students did not know the information before the class and had encountered it by the time they left, he had been successful in doing his job. Because endorsed experiences such as those described by Roger and Thomas seemed to be less dependent on outside forces (e.g., other people; previous experiences) than growth or interactive experiences, they may be more closely tied to the development of one's perceived self-efficacy.

Discussion

The purpose of this study was to explicate the most influential source of self-efficacy beliefs, enactive mastery experiences, thereby building a foundation upon which to inform educational efforts and campaigns fostering perceived self-efficacy among individuals. More specifically, this study identified the sources of sex educators' beliefs about their ability to be successful teachers. This research is among the first to focus on descriptions of authentic mastery experiences, and the categories of experience that emerged in these data—growth, interactive, and endorsed—are not mutually exclusive and may be several out of many possible types of mastery experiences that occur in various contexts.

This study is grounded in the argument that existing discussions of mastery experiences provide little guidance for identifying such experiences in their different forms. Perhaps the most important finding in this study is that interviewees described an array of experiences that could be classified as enactive mastery but that differed from each other in distinct, classifiable ways. Growth experiences are the category that most closely resembled Bandura's (1977, 1997a) generic discussion of mastery experiences. Growth experiences draw from actors' previous learning experiences, which they come to perceive as forming a necessary foundation for the success of the later mastery experience. What differentiates the growth experience from Bandura's discussion of the mastery experience is that there exists a more specific level of learning that actors account for when they describe growth experiences. They identify learning that happens *before* mastery and link that explicitly to mastery. Mastery often requires a basis of previous enactive experiences that one would not necessarily deem masterful.

Previous research on mastery experiences has discussed them in terms of one, central actor (e.g., adults working to overcome phobias, Bandura et al., 1997; adolescent girls working to overcome anorexia nervosa, Horesh, Zalsman, & Apter, 2000), but interviewees in this sample described interactive mastery experiences that depend on other people engaging with the actor. Activities such as teaching might be more likely to put individuals in positions in which they believe mastery is dependent on others, but mastery of any kind depends on variables that an actor cannot control directly. Mastery, in this sense, might always be conceptualized as an interactive experience. To conceptualize mastery experiences as something that happens with others rather than as an individual may allow for a clearer portrayal of the lived experience of this source of self-efficacy. At the same time, however, endorsed mastery experiences are a reminder that the actor's behavior is the most salient information that actors weigh when judging how effective they have been.

In future research, the project of explicating enactive mastery experiences would be furthered significantly by analysis of their opposite. Researchers should explore inefficacious experiences that involve an inability to endorse the tools of a task, a disconnect with others working to accomplish a goal, or an unwillingness to view past experiences as opportunities for growth and eventual mastery. Such a project, when combined with continued efforts to delineate other types of authentic mastery experiences, will provide a foundation on which to foster perceived self-efficacy among sex educators, health advocates, and countless others.

A strength of this research is that it reports on individuals' direct experiences with naturally occurring mastery experiences, and the semistructured interview format allowed participants to describe those experiences in their own words. This is important because enactive mastery experiences are not something that can be observed by others as an outsider's perception of mastery may not align with the actor's perception. The most direct way to learn about enactive mastery in authentic situations is to ask for first-person descriptions of such experiences. That being said, this study is also limited in notable ways. First, the results rely on self-reported data obtained from a convenience sample that yielded a response rate of 12.5%. The sample can be considered neither representative nor random. Second, the recruitment materials sent to potential participants included a list of interview questions. Although this strategy may lower participants' uncertainty, it also introduces the possibility of selection bias. Third, this study is limited by the subjective nature of the research and the lack of independent verification of the data interpretation and analysis.

Implications for Practitioners

The typology of enactive mastery experiences that emerged from analyzing the interviews has implications for health promotion efforts. First, growth experiences were a rare type of mastery experience discussed during interviews. Only 3 of the 10 teachers who described a growth experience had received formal training in teaching sex education, perhaps because those who had no training had the most growing to do once they started teaching. That this category was described the least by participants suggests either that growth experiences are harder to remember than are other types of mastery experiences or that they require individuals to demonstrate a high degree of persistence and optimism and thus are somewhat unusual. Programs designed to foster growth experiences may need to emphasize the often long path to success and the stages of growth that are necessary for achieving a goal.

Second, interactive experiences were the second most common type of mastery experience evident in the interviews. All of the interactive experiences mentioned by participants were co-constructed with students but not all of them involved the same amount of agency from the teacher. In some cases, teachers described facilitating interactions that they deemed successful and thus framed themselves as the instigator of mastery. One might infer that these individuals would likely garner a sense of perceived self-efficacy from such mastery experiences. However, other teachers described interactive experiences in which students seemed to control whether they deemed the experience a success. The influence that such an experience might have on a teacher's perceived self-efficacy would probably be limited, as they most likely would not see themselves as the source of success. What this means for programs designed to foster interactive experiences is that it is important to emphasize the value in facilitating (rather than just taking part in) constructive interaction.

Third, endorsed experiences were the most common type of mastery experiences described by participants. What this indicates for the field of sexual health is that teachers are more likely to have mastery experiences fostering self-efficacy when they have a say in the curriculum and activities that they use. Those individuals in the present sample who did not endorse the curriculum and activities that they used often felt as if they were using the wrong tools to accomplish their task and thus tended to feel unsuccessful when teaching. Mastery among participants in this sample tended to emerge from a sense of self-determination in achieving their goal. Thus fostering mastery experiences and, in turn, self-efficacy in others may involve creating an environment in which they not only know the basic information necessary for accomplishing a task but also feel listened to by their colleagues and advisors.

Declaration of Conflicting Interests

The author declared no potential conflicts of interests with respect to the authorship and/or publication of this article.

Funding

The author disclosed receipt of the following financial support for the research and/or authorship of this article: This work was supported by a research incentive grant from Purdue University's College of Liberal Arts.

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