

Supplemental Table 1. Components of self-advocacy codebook. Example data has been lightly edited for clarity. Brackets indicate words added, or long pauses during the interview. Ellipses indicate words removed for conciseness.

Major code	Subcode	Description and notes	Example data
Knowledge of self		Awareness of individual strengths, and weaknesses as a learner with a disability.	See subcodes below.
	Strengths	Apply subcode when a participant describes a strength they have as a student.	“... But I happen to be better at math.”-Oakley “I always have been naturally better at math as opposed to English.”-Opal
	Weakness	Apply subcode when a participant describes a weakness they have as a student.	“...I'm really bad at reading comprehension.” -Megan
	Description of themselves as a learner with a disability	Apply subcode when a participant describes something about themselves as a learner with a disability, that is not framed necessarily as a strength or a weakness, but an aspect of how they learn as a student with a disability.	“When the professor is lecturing, I need for them to repeat what they just said because I may have caught part of it, I may have been distracted and working on a problem and I'm not able to work on a problem and listen to them at the same time. -Isabel “I'm trying to hold on to [the instructor's] words, while also holding on to what I'm writing down. It makes me feel like I left something behind. You can feel when you leave for the airport and you feel like you're leaving something behind, you get there and it's like your I.D. That's what it feels like to me...With my notes, I feel like I haven't gathered everything.” -Opal
Knowledge of rights		“Knowing one's rights as a citizen, as an individual with a disability, and as a student receiving services under federal law” (Test et al., 2005, p. 50) <u>Note:</u> Apply this code when a participant names a federal law specifically.	“I'm not really afraid because I know I have legal protection...I'm assuming Section 504 of the Workers Compact [Rehabilitation Act] of '73 would apply, considering that I got the same accommodation, the 504 stuff in high school.” -Archie
Knowledge of STEM learning context		Awareness that accommodation needs are influenced by the learning environment experienced by students with ADHD and/or SLD in undergraduate STEM courses	“This past semester, I didn't use 'em [accommodations] as much as I previously did... In some classes like if...we took all of tests during our lab period, so you got two and a half hours to do it. There's no way I'm gonna go over two and half hours for a 15-question test.”-Wyatt

			"[I] figure out what the course is going to be. Is it going to be a lecture? Is it going to be group work? Is it going to be a lab? Is it actually a lab? Then see which of my accommodations actually apply..." -Henry
Knowledge of accommodations		Awareness of: (1) Accommodations that are available to a student with ADHD and/or SLD, and (2) How the accommodation process in college works, including knowledge of the student role, the DRC coordinator role, and the instructor role in the process.	<u>Awareness of accommodations</u> "An accommodation that's an option is the notetaking [accommodation]. I just never had that in high school, so I think coming to college, I was like, I don't know what that is. I just opted out of that every semester for every class." -Cassie "I didn't even know at the time that I could have gotten accommodations for [the lab practical]." Kendra* <i>*This example overlaps with knowledge of STEM learning contexts</i> <u>Awareness of accommodation process</u> "You request the [extended] time [accommodation], you can schedule all your exams in the beginning of the semester, and you can have it just ready to go, you don't have to worry about it...If you feel like you don't have the resources or one of your accommodations just isn't working for you, just speaking up, and if you don't feel comfortable talking to the teacher, you can bring it up to the DRC, I'm sure they're glad to contact the teacher directly."-Carter "So they do a service with the DRC where you can have ... people in your class, the teacher will make an announcement and they'll say, "Hey, by the way, we need a note-taker in this class. If you are coming to class on a regular basis and you take good notes you can get paid just for being here and sharing your notes." So I used a note-taker last semester and they were paid by the DRC and gave me my notes."-Claudia

Agency		An individual belief that an individual student with a disability is responsible for their own accommodations and success in college. <u>Note:</u> Agency is related to participant's knowledge of their own role as a student in the accommodation process.	"I took it [into my] own hands, because I was struggling. I went and [asked] for help and figured that out for myself, so what's your problem with it? If you want extra time, go get tested, and go figure it out for yourself." -Opal "The best thing...for me has been learning that if I need something, I have to learn how to do it myself. I know that if I don't go up to them and tell them, then I'm not going to get what I need." -Kendra "If a problem arises, I go confront it, and I say I have this accommodation I would like to apply to this situation." -Henry
View of disability		Individual participant's view of their own disability. <u>Note:</u> Code every instance a participant describes their view of disability during the interview. Examine totality of coded view of disability data for each participant to determine how participant tended to express the view of their own disability in the interview.	See subcodes below.
	Accepts or embraces disability	Participant explains that they accept or embrace their own disability.	"Let me just tell you. I don't care. I'm proud." There are definitely benefits that you can find about having dyslexia, but there are definitely negatives to it as well."-Mia "I don't see it as a burden, or something that makes me lesser, or less hard working or anything like that. It's just...your chemical makeup."-Opal "I know that my learning disabilities changes the speed at which I intake information and can export it, essentially, and my ability to do either one. My ability to misread or my ability to misspeak. My knowledge of the subject, though, is unaffected. I think ... So I don't feel ashamed that I need

			these things because sometimes I even think I'm smarter than the other people. Because I had to work so hard to get to the same speed-level, or standard, as other people, that it caused me to have to be almost better than them on the knowledge-base. I know it takes me longer to write out or to read information. So I had to speed up somewhere else. Which means I had to be more proficient with the knowledge, if that makes sense. If we were taking a multiple-choice exam, it could take me all ... it could take them 15 minutes and then take me an hour and I would get everything right..because I knew I had to step up and learn it more even though it took longer to physically read out the questions and then write out the responses... I feel no shame.”-Henry <i>*This example overlaps with knowledge of self</i>
	Conflicted about disability	Participant explains that they are conflicted about their disability.	<u>Talking about his view of people who use accommodations</u> “I don't really care what other people do, but I do think it's unfair for me personally. Actually, I don't even know if it's unfair. I'd like to see what my life would [long pause] I mean, my life is fine. There's nothing wrong with me. I'd just be interested where I would be if I hadn't received them... Maybe things could be really bad. I don't know...It didn't used to bother me. For some reason it bothers me now, I guess.”-Aaron
	Disability is negative	Participant explains that they view their own disability negatively.	“Technically, I have a disability. Even though I’m kind of embarrassed about it.”-Ryan “Even though I was diagnosed with a disability, I really don't like to think I have it...”-Judd
Stigma of disability		Participant discusses their perception of disability in the context of undergraduate STEM courses. This includes how STEM instructors, and peers view disability and accommodation use in the context of undergraduate STEM courses. <u>Frequent examples are:</u>	“Sometimes I do tell them, talk to my friends and stuff. I think ... I don't think they really care. Like, you know? Just because like I said, people have their opinions about ADHD, so a lot of times when I mention it, it's always like a very snide comment on how ADHD is a made-up thing, and really kids just need to go outside, or you know? I don't know, it just seems very negatively viewed.”-Dana

		-ADHD over-diagnosed or not a real disability -People who use accommodations are not smart -Accommodation use is unfair <u>Note:</u> This is related to view of disability	"The stigma is primarily like people joke a lot about dyslexia...There is a negative stigma...[the] stigma seems like it's making people who have dyslexia out to be less intelligent than the average person just because their brains process information in a different way."-Mia <u>Asking instructor about their view of accommodation use:</u> "Do you think this makes me look like a lesser student?" -Aaron
Feeling/perception of using accommodations or having a disability		Participant describes how they felt about using accommodations, or their perceptions of what accommodation use is like for them in college.	"[Accommodations] level the playing field"-Oakley "Just at the beginning I guess I was nervous about asking, or telling a professor. I wasn't nervous about telling them I had the DRC, just about missing class and asking for something different."-Jake
Instructor supports self-advocacy		The instructor supports participant self-advocacy by being perceived as approachable, when the instructor affirms use of accommodations in their course, and when the instructor helps the student use their accommodations in the course.	<u>Instructor affirms accommodation use:</u> "He kind of said like with [my upper-division math course] time isn't a concern, because you can solve a problem for years, so I shouldn't be worried about it. So, he gave me... a concrete example of like why I shouldn't be worried." -Aaron
Communication		Communication for the purpose of self-advocacy involves "negotiation, assertiveness, and problem-solving in a variety of situations" (Test et al., 2005, p. 50). <u>Note:</u> This code includes stories participants tell about self-advocating, so it may be double-coded with self-advocacy with instructor or self-advocacy with DRC. Also relates to disclosure of disability codes.	"I have to consider professor to professor, how the best way to communicate with the professor. It is not particularly that I changed my form of advocacy, it's more that I recognize that each professor is going to respond in a different way or each professor is going to respond in a form of communication in a different way, which would be better. Like I said, my statistics professor really doesn't do face to face. I've just gotten that vibe from him, so it's I recognize that if I'm to advocate for myself, it's best if I do it over email. Whereas in ecology and biochemistry, the easiest way for me to advocate for myself is to be there in person and discuss with them in person, because that's just how they best communicate."-Mia
	Self-advocacy with instructor	Real-life example of participant self-advocating to a STEM instructor.	"I went up to him [a STEM instructor] and I said, 'I'm struggling to finish these pop quizzes, this is stressful. I'm

		<u>Note:</u> The instructor must know they use accommodations in their course to apply this code.	set up with extra time for my tests. Is it possible for there to be any sort of way to get extra time on these quizzes?’ At first he said no, and I was like, ‘I’m not finishing these, I’m stressed out,’ and he said, ‘Okay, the best I can do is putting your paper down first and then picking yours up last,’ and I said, ‘I will do it, sounds good.’-Claudia
	Self-advocacy with DRC	Real-life example of participant self-advocating with the DRC. <u>Note:</u> This goes beyond just the general process of signing up for accommodations using the DRC portal each semester. Use this code when they describe going back to their coordinator to adjust existing accommodations, or to request new accommodations.	“It was during the first exam. I didn’t do as well as I normally did previously in high school. When I went back and looked over the exam, I realized it’s some of the reading mistakes I make, and the format of the exam was on the computer. Normally in high school, since everything was on paper, I could go back and highlight and underline and help myself focus. I wouldn’t make as many reading mistakes. So then when I realized that was the problem, I went back to my DRC coordinator and I talked to her about it and then we got printed written exams.”-Henry
Disclosure of disability		Participant describes how much they tell their STEM instructors about their disability and their rationale for this level of disclosure.	See subcodes below.
	Level of disclosure	Participant explains how much they tell their STEM instructor about their disability, or accommodation use.	Interviewer: Do you typically tell them [STEM instructors] that you have dyslexia? Mia: Generally, I do. Obviously I’m not shy at all about having a disability...
	Why disclose?	Participant explains their rationale for disclosing their disability to their STEM instructors.	“I feel like if a teacher understands what disability I have, they can better comprehend what I may be needing from them in a course. Often, I’m just like, “I have dyslexia. It is what it is. I have these accommodations and if you have questions, you then let me know.” Instead of just being like, “I have a disability. Let me leave this very vague. I have a disability and I have accommodations.” To me, it just is easier if they know what I have so that they can work with me.”-Mia

	Why not disclose?	Participant describes their rationale in deciding not to tell their STEM instructors they use accommodations, or why they do not tell them about their specific diagnosis.	<u>Describing why she doesn't tell her STEM instructors more information than what is provided in the official accommodation letter.</u> "I don't feel the need to tell the [instructor] because what are they really going to do with that information? They're gonna go on and teach their 300-person class the same way they're teaching it."-Opal
Participant definition of self-advocacy		Apply code when the participant says their personal definition of self-advocacy. <u>Note:</u> If the participant is unfamiliar with the exact term self-advocacy is, code the exchange between the interviewer and the participant.	"It means to me being able to verbalize and identify areas that I might not be strong in that I will need assistance in, and not being ashamed in needing the assistance. I think just being able to discuss, have a conversation with somebody about what your needs are..."-Mia "Just basically speaking up when you have an issue with something, even if the people around you don't necessarily have the same issue."-Oakley
Leadership		"An awareness of the common needs and desires of others, working with others, group dynamics and responsibilities" (Test et al., 2005, p. 50)	See subcodes below.
	Advocates for others with disabilities	Taking action for others with diagnosed disabilities to overcome stigma.	"I wanted to find a genetic marker to correlate with people who had been diagnosed with ADHD and I actually found one in a very small population size. But the whole reason I did that was because I wanted to reduce the stigma around ADHD." -Oakley
	Advocates for peers to be tested to receive accommodations	Taking action and advocating for peers without formally diagnosed disabilities to be tested to receive academic accommodations.	<u>Informing/encouraging peer to be formally tested for ADHD:</u> "My girlfriend felt like she was experiencing some symptoms [of ADHD] as well, especially after I did my [official testing]. I was telling her some of the stuff the [psychologist] said... they gave her a scholarship to pay for the [official] testing."-Carter
Filling gaps		Participants taking action to mitigate a perceived limitation in either their formal accommodations from the DRC, or a perceived limitation in the instructional practices used in a STEM course.	<u>Developing own note-taking system</u> "So, I have in my ecology class, I have a Google document that I take notes on, but they [other students in class] also will take notes on. So, if one of us misses something and another person will go ahead and just type it in or fill it in.

			So, that's been really beneficial, because she [the instructor] goes so fast. So, we can't always catch everything and so by having those other people be able to be there, then you're not missing anything. It's the same concept [as requesting a DRC notetaker]."-Mia "I do my own form of accommodating by having another support system that is not the DRC that I can fall back on." -Heath <u>Seeking out tutoring instead of going to office hours when instructor is not perceived as approachable</u> "So in order to understand course material... I go to tutoring, both through the Department of Academic Enhancement [a place of free tutoring on-campus], and a third-party tutoring that I pay for if I need it. I just do what I need to do to do well in the class."-Oakley
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Note: Codes related to a subsequent study are redacted.