Mixed Feelings about Choice: Exploring Variation in Middle School Student Experiences with Making Choices in a Personalized Learning Project

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Abstract

While providing choice can be a powerful way to personalize learning for young adolescents, there is also evidence that choice can be challenging for learners. This study investigated middle school students’ (N = 72) feelings about making choices in how they learn during a personalized project. Findings include students’ self-reported enjoyment and stress associated with choice within the project as well as five student vignettes illustrating some of the variations across student experiences. Informed by this variation, we offer several implications for research and practice related to supporting students in making choices in their own learning.

Keywords: personalized learning, student choice, middle school, student perceptions, stress

Personalized learning has garnered much attention in recent years as an increasing number of school districts are exploring this innovative approach to teaching and learning as a means to raising academic achievement and addressing the diverse needs and interests of their students (Bingham, Pane, Steiner, & Hamilton, 2016; Sykes, Decker, Verbrugge, & Ryan, 2014). Educational policies such as the U.S. Department of Education’s (U.S. DOE) Race to the Top-District competition that identified personalized learning as a first “Absolute Priority” (U.S. DOE, 2013, p. 6) have also created powerful incentives to encourage schools to transition toward personalized learning environments. Due to the synergy between the characteristics of successful schools for young adolescents outlined in This We Believe (National Middle School Association [NMSA], 2010) and the core principles of personalized learning (Bray & McClaskey, 2015), personalized learning has also developed into an area of particular interest for the middle-level research community, as is evident in its identification as a focus area in the MLER SIG Research Agenda (Mertens et al., 2017). Moving
toward personalized learning, however, is no small task because it represents a new paradigm for education.

Personalized learning requires a considerable shift for teachers and schools that tend to employ traditional, teacher-centered pedagogical approaches. This is a fundamental philosophic shift because to personalize learning, teachers must not only know their students deeply but must also be prepared to engage them as co-designers in learning experiences that privilege student voice and choice. Similarly, for students who are used to engaging as learners in teacher-centered learning environments, personalized learning challenges them to shift their stances as learners and engage as active participants in the design of their learning experiences. While there is significant evidence to support the relationship between learner-centered instruction and student engagement (Cooper, 2014; Meece, 2003; Toshalis & Nakkula, 2012), there is also evidence that a shift toward learner-centered practices can result in student resistance. Studies on active learning and student-centered instruction, for example, suggest that choice and voice in learning are associated with an increase in rigor that is not always enjoyed by students and, in some cases, students have been found to prefer more passive modes of learning (Smith & Cardaciotto, 2011; Woods, 1994). Similarly, research has shown that choice “has the potential to be restricting and even debilitating” (Brockett, 2006, p. 28; Schwartz, 2004) and can contribute to power struggles between students and teachers in the classroom (Netcoh, 2017).

One of the central premises of personalized learning is that individual learners need and want different things. Following this logic, we intuit that this variation also applies to student views on making choices in their learning. With that in mind, we aim to better understand how middle-grade students feel about making choices about how they learn and how their experiences with choice-based learning vary. By taking a close look at one team of 72 students and delving further into the perspectives of five students who had very different experiences with choice, we aim to deepen our understanding of the student experience of this teaching approach. We then aim to use the findings to derive implications for both research and practice. The study investigates the following research questions:

1. How do middle school students feel about making choices in how they learn?

2. In what ways do student experiences with choice-based learning vary, and what can we learn from this variation?

**Review of Literature**

In this section, we review the key literature that is central to the design of this study. Due to the variation that exists in personalized learning definitions, we begin by identifying the definition of personalized learning that is used in this study. We then draw connections between personalized learning and middle school philosophy, define an approach to personalized learning called hands-joined learning, synthesize research on middle-grade learner perceptions of personalized learning, and introduce known challenges associated with choice in learning.

**Defining Personalized Learning**

Personalized learning has been defined in multiple ways (Tomlinson, 2017) and is often conflated with individualization and differentiation. In an effort to clarify some of the confusion surrounding these terms, Bray and McClaskey (2015) offered a framework for distinguishing personalized learning from these related pedagogical approaches. Within this framework, the primary factor that distinguishes differentiation from personalized learning and individualization is that the former involves tailoring curriculum, instruction, and assessment to groups of students whereas the latter approaches entail customizing learning experiences for individual students. Although personalized learning and individualization both involve tailoring curriculum, instruction, and assessment to the needs and preferences of individual students, these pedagogies differ in the degree to which students are involved in the design, direction, and evaluation of their learning. Whereas the teacher customizes learning for students in individualization, learners themselves take an active role in determining the goals, design, methods, and assessment of their own learning in personalized learning. Indeed, Bray and McClaskey (2015) asserted that “encouraging learner voice and choice” is the “key” factor that distinguishes personalized learning from differentiation and individualization (p. 14).

For the purpose of this study, we operate from Bray and McClaskey’s (2015) definition of personalized learning, which suggests that “personalized learning environments” are those in which students “have a voice in what they are learning based on how they learn best” and “have a choice in how they
demonstrate what they know and provide evidence of their learning” (p. 14). Other key elements of personalized learning according to this definition are that students co-design learning experiences with their teachers, “connect their learning to their interests, talents, passions, and aspirations,” develop the skills to select and use technology and resources to support their own learning, and act as self-directed learners (p. 9). This definition of personalized learning aligns with the practices investigated for this study because the project involved the teacher and each student co-designing a learning project in which students were self-directed and made critical choices in the content, process, and product of their learning.

Why Personalized Learning in Middle School?
When operationalized in accordance with Bray and McClaskey’s (2015) definition, personalized learning has the potential to be developmentally responsive and enhance the fit between young adolescents and their schools. Scholars and reform advocates have long identified a mismatch between young adolescents’ desire for autonomy and schools that offer few opportunities for middle grade students to have a choice in or make meaningful decisions about their learning (Eccles et al., 1993; Jackson & Davis, 2000). Since these early calls for more developmentally responsive practices in the middle grades, a growing body of research has shown teaching practices that support adolescents’ perceptions of autonomy—such as creating classroom environments congruent with adolescent-defined goals and values and supporting adolescents’ actions that are derived from adolescents’ evolving sense of self—can be an effective means for increasing student motivation and engagement in the classroom. (Williams, Wallace, & Sung, 2016, p. 528)

With its emphasis on student voice and choice in the learning process, personalized learning represents a promising pedagogy for responding to young adolescents’ developmental need for autonomy in school.

Personalized learning also aligns with other aspects of middle-grade philosophy as detailed in the This We Believe framework for successful schools for young adolescents (NMSA, 2010). For example, successful schools for young adolescents should provide all students “with the knowledge and skills they need to take responsibility for their lives, to address life’s challenges, to function successfully at all levels of society, and to be creators of knowledge” (NMSA, p. 13). Personalization supports these goals by offering students opportunities to take increased responsibility for their learning through voice and choice in the educational process. Additionally, when students are afforded voice and choice in personalized classroom environments, they are able to design learning opportunities that are purposeful and relevant, two central characteristics of effective schools for young adolescents. Finally, as Nesin (2012) first noted, active learning implies that students “take responsibility for helping to plan and assess their learning,” which personalization promotes by giving students voice and choice in various aspects of the learning process (p. 22). In these ways, personalized learning can serve as a strong pedagogical foundation for successful schools for young adolescents.

Hands-Joined Learning (HJL)
The framework for HJL projects was developed by DeMink-Carthew, a teacher educator, and DeMink, a classroom teacher, as a way to support teachers in personalizing learning within academic content areas (DeMink-Carthew & DeMink, 2016). The phrase “hands-joined” was prompted by this thought-provoking excerpt from This We Believe in Action: Implementing Successful Middle Schools (Association for Middle Level Education, 2012):

Developmentally responsive middle grades educators take the concept of hands-on activities further by promoting what might be termed “hands-joined” activities, ones that teachers and learners work together in developing. Such activities foster ownership and lead to levels of understanding unlikely to be achieved when learners are simply completing teacher-made assignments. (p. 16)

Building on this notion, HJL seeks to create opportunities for learners to engage in what the authors of This We Believe called “active, purposeful learning” by supporting teachers and learners in co-designing personalized projects connected to a shared classroom theme (NMSA, 2010). Given the increasing popularity and evidence base for project-based learning (Kingston, 2018) and calls for increased personalization of learning, HJL was designed to support teachers in bringing together key elements of personalization and project-based learning. Additionally, informed by research that suggests that active learning and student choice can be challenging for students (Morrison, 2008; Schwartz, 2000; Smith & Cardaciotto, 2011), HJL aims to help teachers strike the delicate balance
between offering meaningful opportunities for student choice while also appropriately scaffolding learning.

HJL (see Figure 1) includes three phases: (a) co-developing inquiry questions; (b) co-planning, co-inquiry, and preparing for sharing; and (c) authentic sharing. While these are intended to occur in order, the three activities associated with the second phase (co-planning, co-inquiry, and preparing for sharing) are naturally iterative as the focus of student projects evolves based on shifting interests and new discoveries in the inquiry process. Each of these phases is designed to support teachers and learners in bringing together learner interests, talents, passions, and aspirations with academic learning objectives as they co-design personalized projects. To provide students with support while also honoring their autonomy as they experiment with personalized learning, a range of instructional scaffolds are provided in each phase to support learners in making important decisions regarding their learning. For this reason, the conceptual map of HJL nests the three phases within the concentric circles of a shared theme, scaffolding, and meaningful student choice. These three commitments inform each of the three phases in that (a) co-developed projects should connect with the shared theme, (b) the teacher should provide a range of developmentally responsive instructional scaffolds, and (c) students must have the opportunity to make meaningful choices in their learning.

**Middle Grades Student Perceptions of Personalized Learning**

Existing research on personalized learning has primarily focused on describing its enactment in practice (e.g., Pane, Steiner, Baird, Hamilton, & Pane, 2017; Patrick, Worthen, Frost, & Gentz, 2016) and how it changes teachers’ roles and responsibilities in the classroom (e.g., Nagle & Taylor, 2017). There remains a relative lack of research on middle-grade students’ experiences with personalized learning, including studies on their perceptions of opportunities for choice in their learning (Williams et al., 2016). In one of the few studies of students’ perceptions of personalized learning and choice in their learning in the middle grades, Netcoh (2017) found that students and teachers struggled over the bounds of choice during a newly implemented personalized learning time. Some students believed that personalized learning time was intended to be “all around” student choice and that any teacher efforts to support their projects undermined their autonomy and volition in their learning while other students struggled with the responsibility for making choices about their learning and wanted more teacher direction in the project (p. 388). Despite these struggles over the bounds of choice, the study reinforced existing

![Figure 1. Conceptual map of the hands-joined learning framework.](image-url)
research that suggests young adolescents “desire opportunities for authentic choice and decision-making in their learning” (p. 390). The present study further examines middle-grade students’ experiences with opportunities for authentic decision-making in their learning and extends the inquiry by focusing on an often overlooked aspect of personalization—student voice in the learning process, not just content and product.

The Paradox of Choice
Although considerable evidence exists to indicate that offering students choice is an effective means for supporting autonomy and engagement in their learning (Assor, 2012; Ryan & Deci, 2000), some scholarship suggests that choice can be demotivating and disengaging in some situations, creating what has been termed “the paradox of choice” (Schwartz, 2004). For example, Morrison (2008) and Vatterott (1995) have both asserted that many students initially struggle with the responsibility for making choices about their learning because they have so few opportunities to do so during the school day and do not have a fully developed skill set to direct their own learning. Students may also perceive their new autonomy as negative freedom (i.e., freedom from constraints) rather than positive freedom, which has been defined as “freedom to work in concert with others to overcome limits” (Greene, 1988; Morrison, 2008, p. 55). Given their limited experience with choice and freedom in schools, students may use this power to “push for lowered workloads” and similar concessions from teachers (Morrison, 2008, p. 55). Additionally, having too many choices without clear parameters can become overwhelming and create situations in which we “become controlled by the choices that surround us rather than the other way around” (Brockett, 2006, p. 28), leading “not to freedom of choice but to tyranny of choice” (Schwartz, 2000, pp. 80–81). Given these considerations, it is important to better understand how students experience opportunities for choice in their learning in real classroom contexts.

Context
This research took place in a Vermont public middle school in 2018, approximately 5 years after the passage of legislation mandating that schools serving grades 7–12 offer flexible pathways to graduation that include proficiency-based graduation expectations and personalized learning plans (Senate Committee on Education Act 77, 2013). The research site is among the most racially and ethnically diverse in Vermont, and the classroom of focus was a multi-age seventh and eighth-grade inclusion social studies classroom with English language learners and new Americans as well as students with IEPS, 504s, and EST plans. At the time of this study, the classroom teacher, herein referred to by the pseudonym William, was implementing his second HJL project after having experimented with variations of personalized learning for several years. Due to a longstanding 1:1 technology initiative, each student in William’s class had access to a personal iPad through which they could access classroom materials, resources, and software applications intended to assist them in their learning.

An HJL Project Focused on Ancient Civilizations
On the basis that it was the overarching theme for the semester and broad enough to incorporate a range of student interests, William selected the theme of “Ancient Civilizations” for this iteration of the HJL project. The project was approximately one semester in duration and paralleled several teacher-designed units of instruction. Most weeks, two of William’s five class periods were set aside to work on the HJL project, resulting in approximately two hours of work time per week for William and the students to engage with the activities described in Table 1 for each of the three phases. Notably, many students moved back and forth between the activities in phase 2 as the focus of their projects shifted. In several cases, students also chose to begin to formulate their prototype for their final products and then moved backward into thinking about what they would need to research.

As part of the commitment to personalization in HJL, each phase was designed to support students in making authentic choices in what to investigate as well as what to create to demonstrate their learning through the authentic sharing of their projects. In addition, based on feedback William had received from students on his last HJL project concerning the need to personalize the learning process (not just content and product), William gave special emphasis in this project on creating opportunities for students to make a range of choices in how they learned. To this end, students completed an Input and Reflection Form (see Appendix A) prior to the project in which they were prompted to share the kinds of choices they felt would be especially important for them to make about how they were researching and learning throughout the project. William then used this input to offer a wide range of choices such as the type of notes to take (e.g. visual journaling or typed notes), whether to work independently or with others, the frequency of check-ins with the teacher (e.g.
# Table 1

**Teacher and Student Activities in the Hands-Joined Learning Project**

| Phase                  | Teacher activities                                                                 | Student activities                                                                 |
|------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Phase 1                | Co-developing inquiry questions                                                    | Collaboratively brainstormed a list of potential inquiry questions.                 |
|                        | * Facilitated whole group and small group brainstorming of inquiry questions connected to the shared theme  |                                                                                   |
|                        | * Compiled student questions into a master list of potential inquiry questions      |                                                                                   |
| Phase 2                | Co-planning                                                                        | Completed a series of planning tools in which they thought through key elements of their project: |
|                        | * Conferenced with students to serve as a sounding board and support students in goal setting | * Inquiry questions                                                                 |
|                        | * Provided feedback on their planning tools                                         | * Research plan, including potential resources                                      |
|                        | * Helped students refine questions                                                  | * Their preferred method for taking notes on their research                         |
|                        | * Offered minilessons designed to help students refine planning tools                | * Connection with the historical thinking standards                                 |
|                        |                                                                                   | * Potential final products they may want to create                                  |
| Facilitating inquiry   | * Conferenced with students to provide feedback and support students in goal setting | * Conducted their research via online research, interviews, and/or surveys            |
|                        | * Curated resources                                                                | * Took notes and maintained a bibliography                                           |
|                        | * Offered minilessons on research skills and note-taking                            |                                                                                   |
| Preparing for sharing  | * Provided prototype templates                                                     | * Created a prototype for a final product that they would like to create to demonstrate their learning |
|                        | * Provided feedback on prototype                                                   | * Developed final product                                                           |
|                        | * Supported students in reflection and self-assessment                              | * Self-assessed using historical thinking standards rubric                          |
|                        | * Collaborated with students to plan Community Day                                  | * Reflected on project and key learning                                             |
|                        |                                                                                   | * Collaborated with students to plan Community Day                                  |
| Authentic sharing      | * Welcomed community guests to Community Day                                       | * Shared their products via a Community Share Day to which families, community members, and school community are invited |
|                        | * Participated in Community Day                                                    |                                                                                   |
experiences making choices about their meaning to identify “(p. 222).”

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Data Collection and Analysis

All 72 learners on William’s team participated in the HJL project as part of their classwork. Students submitted Input and Reflection Forms to William via Google Forms (see Appendix A) at three intervals: before the project, roughly half-way through the project, and at the end of the project. Student responses on these forms were used to inform the whole group, small group, and individual instruction as well as one-on-one conferences and were thus not anonymous when shared with William. To investigate our research questions, we totaled the number of students in each response category of the Likert scales in prompts 2 and 4 of the Input and Reflection Forms completed at the end of the project. Student responses to these same prompts were then used to organize students into five groups: (a) students who reported liking choice and experiencing low stress, (b) students who reported liking choice and experiencing high stress, (c) students who selected the middle response for choice (neither liking nor disliking), (d) students who reported disliking choice and experiencing low stress, and (e) students who reported disliking choice and experiencing high stress. We then invited students representing all five groups to participate in an interview, resulting in 11 interviews with students from the five groups.

Individual interviews were semi-structured, ranged in duration from 17 to 46 minutes, and focused on students’ experiences making choices about their learning during the project (see Appendix B). To determine which students would be the focus of our vignettes (for the groups where there was a choice), we reviewed the interview transcripts with two guiding questions:

1. Which interview offers the most description of the student experience?
2. Which interview provides the most compelling example that speaks to the variation in student experiences with choice?

Having reached consensus on the focus student for each vignette, we then compiled the data for each focus student (all three Input and Reflection Forms and the interview transcript) and used Dedoose qualitative data software to move iteratively through Miles, Huberman, and Saldaña’s (2014) recommended “three concurrent flows of activity: (a) data condensation, (b) data display, and (c) conclusion drawing/verification” (p. 12) to identify the most salient aspects of each student’s experience connected with the variables of choice and stress. Since it is a descriptive task, the writing up of each vignette was an integral part of the analytic method, informed by Marshall and Rossman’s (2010) assertion that “choosing words to summarize and reflect the complexity of the data, the researcher is engaging in the interpretative act, lending shape and form—meaning—to mountains of raw data” (p. 222). Meaning-making continued through collaborative revision and review of the narrative of each vignette until we felt that it best captured the salient points that were evident in the data.

Findings

In the following sections, we provide a summary of student responses on the identified Likert scales and present five student vignettes that offer a close look at the variation in student experiences with choice-making in the HJL project.

Student Variation in Self-Reported Stress and Enjoyment

Student post-project responses regarding the extent to which they liked making choices and found making choices to be stressful during the HJL project have been summarized in Table 2. Most students reported that they liked or loved making choices about how they learned during the HJL project and that they felt little to no stress associated with this choice. Fifty-three students (74% of the total sample) provided responses that placed them in this quadrant. Seven students (10% of the total sample) reported that they felt stressed about and liked or loved making choices about how they learned in the HJL project. Only one student (1% of the total sample) reported feeling little stress and disliking making choices about how they learned during the HJL project. Similarly, only one student reported feeling stress and disliking making choices about how they learned during the HJL project. Only one student (1% of the total sample) reported feeling little stress and disliking making choices about how they learned during the HJL project. Ten students (14% of the total sample) could not be placed into any of the quadrants because their self-reports about the extent to which they liked making choices about how they learned during the HJL project were in the middle of the rating scale (i.e., a score of 3 on a 5-point scale). Because this study took place in a multi-age classroom, we also examined the data by grade level to see if the grade level was associated with any significant differences in the student
experience. While both students who reported not liking making choice were in the seventh grade, the distribution of scores across each group was almost identical across grade levels.

A Close Look at Five Students with Different Experiences with Choice

In the following sections, we take a close look at the perspectives of five students who participated in this same HJL project but had different experiences with a choice. Table 3 provides the pseudonyms, basic demographic information, and subgroup membership for each of the students who are the focus of a vignette.

Bree Loves the Freedom, and Stress Motivates Her. When asked to describe her overall experience with the HJL project, Bree used the word “fun,” elaborating that “it felt kind of good having the freedom to just be you with your project.” The idea of freedom was something that she mentioned several times in her interview, offering examples of how making choices resulted in a feeling of freedom during the project. The most impactful of the choices appear to have been the opportunity to choose what kind of resources and media to use for research because it made it easier for her to learn:

> Normally if we were doing research, we would have these packets or something, or readings that we’d have to do and we’d have to highlight it and then we’d have to reword some of it and put it into our own words. And for me, I was able to find other things, looking at artists or looking at poetry that people have written or looking at videos or documentaries people have put together... and that was a lot easier for me than just sitting down in a class and reading with packets and papers.

This connection between being able to make choices and ease of learning is one that Bree spoke of across data sources, sharing, for example, that she likes to make choices because she knows how she learns best and making choices “allows me to feel comfortable and allows me to learn in a way that I understand.”

Bree’s self-awareness of what works for her, therefore, seems to have amplified her enjoyment of choice within the project.

Bree also acknowledged, however, that making decisions led to some stress as she struggled at times

| Table 3 | Student Profiles for Students Featured in Vignettes |
|------------------|------------------|------------------|------------------|------------------|
| **Pseudonym** | **Grade** | **Gender** | **Race/Ethnicity** | **Subgroups** |
| Bree | 8th | Female | African American | Liked choice/Low stress |
| Pete | 7th | Male | African American | Disliked choice/High stress |
| Ajay | 7th | Male | Multiracial | Disliked choice/Low stress |
| Eleanor | 8th | Female | Caucasian | Liked choice/High stress |
| Asher | 7th | Male | Caucasian | Neither liked nor disliked choice/High stress |
with indecisiveness and self-doubt. Creating an interesting final product that would successfully convey her message to an audience was the most stress-inducing aspect of the project, in part because she “wanted people to walk away with—Wow, that was a really good project!” Although some may perceive this stress as a negative, Bree shared that she found the stress to be motivating and felt it was a necessary part of what she found to be an important experience for her personal growth as a learner. She spoke in particular of the value of having an opportunity to practice important skills such as decision-making, independence, and self-advocacy as she looked ahead to high school and college. This appreciation for the relationship between decision-making and stress perhaps explains why she self-identified as low stress despite having had some stressful experiences within the project. In her own words, “freedom comes with a price” and because she so appreciated the freedom and the opportunity to develop skills that she perceived as valuable, the stress was a small price to pay.

**Pete Feels Overwhelmed by so Much Choice.**

Pete’s opinion on choice shifted somewhat dramatically throughout the HJL project. Prior to the project, Pete indicated that he liked making choices in his learning and did not find it to be stressful, and he stated, “I don’t want a format except for the graphic organizers.” All of this suggests that he felt eager to jump in and make decisions about his own learning. His mid-project and post-project student Input and Reflection Forms show a significant reversal; however, with Pete reporting that he was not enjoying making choices and was experiencing high stress, writing, “It’s too stressful for me to make these decisions” and “It’s better for me to work with more of a format.”

The interview with Pete shed some light on which aspects of the project impacted his thinking. Pete shared that he found it especially stressful to make a decision about the focus of his project because while he wanted to make sure it was something he was enthusiastic about, there were just too many options.

> It was such a broad question—what do you want to do? There are so many options, thousands, millions . . . It was just stressful having so many options. I feel like he should cut it down or have a vote—cut it off to like the United States. Or if everyone in the class likes sports, just cut it down to sports or something like that.

This comment suggests that, for Pete, the freedom and openness of the project focus was overwhelming, and he would have preferred to have his choice bound in some way.

Pete also reported that due to the personalized nature of the work, his teacher was not always accessible when he needed help because he had to meet with so many students individually:

> Sometimes the teacher wasn’t there because we were all doing personal work. So he has to check in with everybody and see how they’re doing. And I’m not really that confident with my work as much as I could be. So sometimes a choice was that you could just submit it and show it to him. My type of work wasn’t the type of work where you could do that because I was checking out websites and all that and sometimes I didn’t know what I was doing so I didn’t know really how to ask.

In this way, a lack of confidence combined with ambiguity about how to ask for help left Pete in a stuck place. Paired with occasional self-admitted “goofing off” and stretches of low productivity, Pete ended up being behind the rest of the class, a status which left him feeling that he had “failed at choice” because he was not able to manage it all. Reflecting on his experience, Pete made some astute connections between his feelings of stress and his work habits.

> Yeah, I made the bad choices, and I decided to do certain work and some work at the last minute, and that’s why I was on my teacher. And it was really stressful at the last minute to be scrambling for work and you’re trying to get it all together. But if I was more organized and more willing to do my work at certain times, then I feel like it would have been a lot more fun of a project.

In this quote, Pete underscored the important role that social and emotional skills, such as self-management and organization, can play in personalized learning experiences.

The challenges that Pete faced within the project resulted in him feeling as though he did not like making choices in his own learning, which in part explains the shift in his ratings from the beginning to the end of the project. When reflecting on his shift in scores, however, Pete shared that in his previous experiences with choice, the choice was small. For example, he may have had to choose between two
projects or a few set of activities. In contrast, the HJL project was almost all choices, which felt like too much to Pete. However, while one might presume that this meant he did not enjoy the project, Pete shared that “out of all the projects we did in all these other classes, the hands-joined is probably my favorite” and that now that he has done it once and understands how it works, he reported that he is looking forward to doing it again. Despite the stress and the struggle, Pete feels he learned how to engage with a project like this one and would like to have an opportunity to give it another try.

**Ajay is Bored and Prefers When Teachers Choose What and How He Learns.** Ajay did not enjoy the HJL experience and found it to be boring. From his perspective, his lack of enjoyment and boredom were due primarily to two issues: (a) he was not excited about his topic, and (b) he disliked the “silent research” that he felt he had to do for the project. Concerning the issue with his topic, Ajay shared that he struggled to find one that interested him and ultimately settled on something he was not thrilled about.

I wasn’t excited about what I was researching; I didn’t really care that much. And I generally think that caring about a project helps you do better on it. Like if you’re actually interested in what the project is, you’re going to do better on it. Sort of like if you like your job, you’re better at it.

While he acknowledged that the selection of his topic was his choice, he also shared that he felt there were “no good choices” and that he had to choose between “two bad things, like having to eat broccoli or zucchini.”

Ajay was also emphatic in sharing how much he disliked all the “silent research” because he found it to be “a bit discouraging just doing that over and over again with no sound, just sort of watching the clock tick.” Self-identifying as someone who liked to chat, he was frustrated that he had to do so much of the work independently and craved an opportunity to work with his peers. While he acknowledged there was an option to work collaboratively, he felt group work was not viable for him because so many of his friends had topics that were unrelated to his or chose to work alone. His frustration with silent research was also due in part to the mode of research that was primarily used by students, online research, and offered several examples of options he felt could have been better:

So we could have been like, okay, we want to do a project where we go outside and see how different things affect civilization, like if we do a protest outside our school and we want to see how people react. Or if we plant a ton of flowers here, how do people react? Or if we spend a lot of time in the library, how do people react? That kind of thing.

In offering these suggestions, Ajay revealed that he would have preferred interactive, hands-on forms of research that were neither precluded nor encouraged as options in the HJL project.

Although Ajay did not find the project to be stressful, he also made it clear that he would much prefer to have the teacher make the choices in his learning. Prior to the project, for example, Ajay wrote “I find it easier to just do what the teacher says, and doing it the other way does not make it more interesting or engaging,” and at mid-project, he wrote “I wish that the teacher would just tell us what to do and we would do it.” In his interview, he spoke to the fact that he enjoys doing “cool projects” that are planned by his teacher and that when it comes to choice, he feels that his teacher is better positioned to make decisions about what students should do because “he is a teacher with experience, and he could probably think ‘what do I really think is going to be fun for these students?’” To illustrate his thinking, he offered an example of a project that they had recently completed in language arts where they were given several set possibilities from which to choose. Ajay shared that he felt this approach was better because his teachers are better positioned to identify choices that make good projects. These thoughts suggest, therefore, that Ajay’s dislike of choice was due in part to his belief that his teachers have expertise that allows them to make better choices for his learning than he would for himself.

**Eleanor Likes Collaborating with a Friend and Being Independent of the Teacher.** Eleanor enjoyed making choices in her learning, although at times she did find it to be somewhat stressful. She also clarified that while she liked it, she would not go so far as to say that she loved it, stating that “I like not having a fixed curriculum, but I’m not going to jump for joy when I realize that it’s a hands-joined learning day.” The independent nature of the work seems to have been an especially salient aspect of the project for Eleanor and one that she enjoyed:
I liked that there wasn’t someone hovering over your shoulder and there’s less pressure . . . If you get to make your own choices, it’s not like someone’s orchestrating the entire thing for you. And if you get to make your own choices, you kind of get to decide on your own deadlines in a way.

In addition to appreciating her teacher not hovering over her, Eleanor was especially enthusiastic about having the opportunity to collaborate with a peer:

I worked pretty closely with my friend Abby even though we had very different projects. Like if we wandered across a source that would be good for the other person, we would let them know. I helped her with her project, she helped me with hers. She was like my peer feedback. I really like working with my friends because it’s nice to have an opinion other than your own.

This enthusiasm for peer interaction paired with a desire for minimum teacher direction is a common developmental pattern in the nature and needs of young adolescents, and it is especially notable, therefore, that Eleanor felt that this project addressed both of these needs.

Eleanor did, however, experience some stress throughout the project, identifying in her student input that it was “very true” (the highest score) that making choices was stressful for her in the project. For Eleanor, the primary sources of stress were challenges she experienced in identifying sources for her online research and the creation of a prototype for her final product. In describing her stress, she shared, “Whenever I was lost or confused and I would have to make a choice and I didn’t really understand what was happening, sometimes that would stop my process a little and I’d get behind.” When asked if she would check in with her teacher to help her, however, Eleanor stated that she did not and that she instead eventually just figured it out, after which point the stress dissipated. Eleanor’s independence in the project thus extended into problem-solving as she worked through some of her challenges without her teacher’s help.

Asher Enjoys Choice but Finds the Uncertainty that Comes with It Challenging. Asher expressed mixed feelings about having a choice in his learning during the HJL project. When asked about his overall experience with the HJL project, he pointed to the independence and array of choices available for his work as the characteristics that contributed most to his enjoyment of the project. He said:

I really enjoyed the project. I liked the independence about it because for most things really, like for math stuff, you have to solve this problem in this way. For this project, like if you come across a thing, you can choose any different way that you’re choosing to be working on it.

Asher particularly appreciated opportunities to choose the types of media with which he engaged for his research and having a variety of options for the kinds of notes he could take. He asserted it was easier for him to use articles and other text-based resources to do his research than videos and that he felt more ownership of his learning when he could choose the note-taking strategies that worked best for him.

While Asher suggested he enjoyed independence and opportunities for choice in the HJL project, particularly in note-taking strategies, he also said during his interview that these same characteristics were aspects of the project that he disliked. When asked if there was anything he disliked about the HJL project, Asher responded, “I liked the independence, but I felt sometimes it was a little too independent. I almost felt like – what’s the word – intimidated about asking for help for some of the things because this was such an independent thing.” This comment indicates that Asher was at times uncertain about how to access help when he needed it and that this uncertainty was a byproduct of his feeling that making choices required students to be completely independent. Rather than viewing self-advocacy as an important part of independent learning, Asher feared it was a sign of dependence and was therefore inclined to avoid asking for the help he needed to reduce his stress.

Asher also shared that the freedom to make choices was accompanied by some uncertainty in determining whether or not what he was doing was “right.” For example, in reflecting on his experience choosing what type of notes were best for him, he said, “I just felt kind of stressed about what kind of notes I was taking because I was taking the notes like I’m best at, but I didn’t know if he [the teacher] expected me to do more notes or a different kind of notes.” Because Asher was used to the teacher determining the “right” way to take notes, the unfamiliarity of having to decide what worked best for him left him unsure of how to determine what was “right.” He also shared
multiple times during the interview and on his Input and Reflection Form his belief that teachers have expertise in academic matters and that he does not always know the best strategies and methods to accomplish his goals. Within the context of discussing “all the training” teachers receive, Asher said, “So it’s like I have this independence to be thinking about what I’m working on, but I don’t really know how it’s going to be useful.” These types of comments throughout his interview and Input and Reflection Forms suggest Asher was conflicted between his enjoyment of being able to make choices for himself and his uncertainty about whether he was making the “right” choices.

Discussion and Implications

The motivation for this study was, in part, to explore the extent to which the prevailing thinking that middle grade students enjoy making choices in their own learning is true. The vast majority of students who participated in the HJL project reported that they enjoyed making choices in their learning and did not find it to be particularly stressful. These findings, therefore, confirm that for most students, making choices in their learning within the HJL project was indeed enjoyable. It is worth noting, however, that the HJL project as described in this study was designed by William to offer considerable scaffolding, structure, and support. Given the important role of instructional scaffolding in middle grades personalized learning (Bishop, Downes, & Farber, 2019), it is likely that the scaffolding provided by William served to mediate some of the stress for students who may have found the choices to be more stressful had they been participating in another personalized learning experience with considerably less support. Despite the overwhelming majority experience, there was some variation in student responses to indicate that although they participated in the same project, not every student had a similar experience with a choice. Taking a closer look at five students who reported different experiences with the project revealed some thought-provoking nuances in the way that students responded to choice, the totality of which point to several interesting implications for practice and research.

Implications for Practice

In the following section, we draw salient aspects of the vignettes to outline several implications for teaching in personalized learning environments.

Students Should Be Supported in Identifying Their Learning Preferences as a Critical Skill for 21st-Century Learning. Our findings suggest that students who know themselves and what works for them are better positioned to benefit from opportunities to make choices in their learning. Bree’s self-awareness of what learning choices work best for her made the experience of having choices enjoyable because from her perspective, having choices actually made her learning easier. In contrast, the experiences of Pete, Ajay, and Asher suggest that they felt less certain in their abilities to make good choices for themselves. For Pete and Asher, this uncertainty resulted in feelings of stress and, for Ajay, it impacted his overall enjoyment of the HJL project. Based on these findings, we recommend that students should be provided with structured opportunities to explore their learning preferences as a critical skill for 21st-century learning. Just as knowing one’s strengths and challenges is an important part of the journey toward self-knowledge, and so too is knowing one’s learning preferences.

Social and Emotional Learning Skills are Needed to Engage Successfully in Personalized Learning. Our findings suggest that social and emotional learning skills such as self-awareness and self-management (Collaborative for Academic, Social, and Emotional Learning, 2018) are important skills needed for students to successfully engage in personalized learning experiences. Pete’s vignette illustrates how personalized learning experiences ask students to use self-regulation and organizational skills to manage their productivity, and, in the absence of these skills, students are likely to experience greater stress and less positive outcomes. This finding resonates with the conversation that is happening nationally about the critical importance of social and emotional learning in 21st-century learning and living (Belfield et al., 2015; Bridgeland, Bruce, & Hariharan, 2013) and also suggests that personalized learning experiences, such as the HJL project described in this paper, are an especially rich opportunity to support students in developing these skills.

The Greater Purpose of Engaging in Personalized Learning Should Be Clearly Defined for Everyone. Our findings suggest that students who view learning challenges and stress as being in the service of a valuable goal may find it easier to tolerate the stress associated with difficult tasks. Bree’s belief that the work she was doing was purposeful and designed to help her develop important skills resulted
in Bree feeling as though stress was a natural and motivating byproduct of a valuable learning experience. While Bree was able to make the connection between the challenging work she was doing and the critical skills she felt she needed for high school and college, it should not be assumed that all students will view this as a central goal of personalized learning experiences. In his interview, for example, Ajay suggested that he would prefer for his teachers to make choices for him. While this may have increased his enjoyment, it would have greatly diminished the opportunity for choice and, by extension, the opportunity to develop self-management skills. We wonder if Ajay would have experienced the project differently if he believed that the goal of the project was, rather than enjoyment, to develop and hone critical 21st-century cross-disciplinary skills that are necessary for real-world learning. (Rotherham & Willingham, 2010). Given the contrast in experience between Bree and Ajay, we recommend that teachers make the greater purpose of engaging in personalized learning clear to students so they can understand that what they are doing is difficult by design and for a good reason. For example, teachers might launch their personalized learning project by illustrating the importance of cross-disciplinary skills to living and learning in the 21st century and show how making choices might be difficult but also worthwhile. In keeping with this goal, we suggest that throughout the personalized learning experience, teachers clearly identify feelings of uncertainty as a valued part of choice-based learning experiences. In so doing, teachers can help students see this as a natural and expected part of the learning experience that, rather than being an indication of failure, may, in fact, suggest they are developing new cross-disciplinary skills such as self-direction and executive functioning.

**Teachers Should Experiment with Strategies for Easing Students into Choice.** While some students appreciate the freedom of so many choices, others like Pete find it to be overwhelming. This finding resonates with the literature reviewed in this paper concerning the “paradox of choice” (Brockett, 2006), which suggests that having limitations in available choices can be helpful to the learner. As much as Pete reported struggling with the HJL experience, he also shared that having done it once, he felt eager to do it again. This suggests that for some students, there is a learning curve associated with personalized learning and that once they have had their first experience, they may find it to be less stressful the second time around. With this in mind, we recommend that teachers help their students see that this project, like many new learning experiences, can be challenging the first time around. In addition, we also suggest giving special consideration to how students who are new to personalized learning can be differentially supported as needed. For example, teachers might ease students into personalized learning by offering more opportunities to meet with the teacher at key decision points or pairing students who are new to personalized learning with a more experienced peer who can serve as a mentor.

**Students Should Be Taught How to Self-advocate.** Our findings suggest that while some middle-grade students greatly appreciate the opportunity to flex their independence, some crave additional teacher support. While Eleanor was eager to experiment with independence and greatly appreciated not having her teacher orchestrate everything, both Pete and Asher suggested that they needed more support but felt uncertain how, or indeed even if, they should ask for it. Pete and Asher seem to have inferred that the largely independent nature of the project meant that asking for help was a sign of failure. To address this concern and best support all learners in personalized learning, teachers must make sure opportunities for feedback and asking questions are not only available as needed but are visible and readily accessible to students. In addition, we recommend that teachers identify and promote self-advocacy as an important skill in 21st-century learning that is indicative of succeeding, not failing, in independent learning.

**Personalized Learning Experiences Should Include Routines and Structures that Support Choice and Peer Interaction.** While Eleanor’s vignette is a wonderful testimonial of the value of peer feedback even with dissimilar project topics, Ajay reported that he wanted this kind of interaction but could not make it work because so many of his peers were choosing to work independently. Similarly, while Ajay disliked the “silent research” and recognized that he had the freedom to choose to conduct his research in other ways, he was unable to find a way to do so. These experiences suggest that, in some cases, simply having the choice to do something differently was not sufficient in helping students actualize the choice because they could not find a way to make it work. This points to the need for routines and structures that are supportive of the developmental needs of middle-grade students for peer affiliation and belonging as they engage in choice-based learning (Caskey & Anfara, 2007). We recommend, for example, that teachers ensure
structured opportunities for peer feedback and interaction are built into the personalized learning experience and, in the spirit of honoring learning preferences, students should be given the option to either meet more or less frequently as needed. Similarly, because students are likely to have more experience with online research, we recommend that teachers introduce a few alternate modes of inquiry (e.g., survey, interview, observational) and offer mini-lessons and workshops that can support groups of students who would like to try a less familiar approach.

**Personalized Learning Calls on Teachers to Be Curious, Flexible, and Humble.** The lessons learned from student experiences with this project demonstrate the considerable challenge of attempting to personalize learning for a team of students. In designing this iteration of the project, William strove to incorporate choice in the learning process based on feedback indicating this was lacking in his last project. In this iteration, while student feedback was overwhelmingly positive, students also pointed to several areas for improvement. Ajay’s despair related to “silent research” points, for example, to another potential area for improvement—offering choice in mode of inquiry. At the time of this study, William had already begun envisioning how he could incorporate more diverse modes of inquiry into his next project. This cycle of continual improvement informed by the diverse perspectives, preferences, needs, and interests of young people points to the need for teachers to embark on the personalized learning journey with a healthy dose of humility, flexibility, and curiosity. In addition, because personalized learning hinges on student choice and voice, partnering with students in this cycle of continued improvement is especially important.

**Implications for Research**

The findings from this study point to some interesting areas for future research. First, this study’s findings are based on a snapshot of students’ experiences making choices in how they learn. A question, then, for future investigation is: How do students’ perspectives on choice evolve with more experience in this area? Such a question is especially pertinent given that many students suggested they had limited opportunities for choice outside the HJL project, meaning that it represented one of their few experiences making choices in how they learn. This study also indicates that social and emotional learning (SEL) skills may be important for students to engage effectively in personalized learning experiences, yet empirical work in this area is underdeveloped at best. Therefore, future research should explore the relationship between students’ SEL skills and their experiences with personalized learning, along with the ways that personalized learning could be used to promote SEL.

Finally, the findings from this study suggest that students’ perceptions of the HJL project’s purpose factored into their experiences making choices in how they learned. Some students who perceived the aim of the HJL project to be about skill building found opportunities for choice to be valuable, whereas others who believed the goal of HJL were engagement had more negative perceptions of choice. Therefore, future research could investigate the role purpose plays in students’ perceptions of choice experiences.

**Conclusion**

The findings of this study affirm the prevailing notion that most middle-level students value the opportunity to make choices in their learning. In this way, the study offers empirical support for personalized learning as a promising pedagogy for the middle grades. The variation evident in the vignettes, however, also illuminated aspects of the student experience that were not readily apparent in the survey data. This study, therefore, serves as an important reminder of how much educators and researchers can learn from listening to the perspectives of students. Moreover, as partners in the learning endeavor, there are some things that we can only learn from our students. The perspectives offered by the students profiled in this study were in many cases invisible to the adults who were most familiar with the project: William, the classroom teacher, and us, the researchers. It was only by seeking to understand the student experience and lingering over their words that we were able to gain a deeper appreciation for some of the nuances of the middle-level student experience of making choices in their own learning. This study, therefore, underscores the critical importance of partnering with students in the education research endeavor, even more so in studies that are centered on personalized learning because student voice is among its central commitments.

Although most students reported that they enjoyed the HJL experience and did not find it to be particularly stressful, the variation evident in the vignettes had us puzzling at times over two questions:

1. If we are aiming to personalize learning, should students have a choice in how much choice they have within a learning experience?
2. How important is it that students enjoy the learning experience?

These questions prompted us to clarify the goal of the personalized learning endeavor itself. While enjoyment of a particular experience is certainly something that we want for all students, it is not the end goal of the learning experience. Moreover, enjoyment may waiver as students experience challenges associated with choice-based learning. If the goal of the learning experience is the development of transferable SEL skills such as self-management and decision-making, then we posit that the amount of choice should be determined by what will help students learn the transferable skills at hand. In other words, while students may find the project both enjoyable and stressful at times, the true assessment of the project’s success is whether or not students are developing the critical skills that will allow them to persevere and succeed in “real world” learning, even when it is difficult. With this in mind, we conclude with the suggestion that young people will be best positioned to benefit from a personalized learning experience if all those who are engaged in the experience—educators, school principals, policymakers, students, researchers, families and community partners alike—have conceptual clarity and consensus concerning the purpose of the experience in the greater picture of lifelong learning.

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Appendix A. Student Input and Reflection Form Prompts

*Note: All prompts were open-ended unless otherwise noted with italics.

Pre-Project Prompts

1. Describe yourself as a learner (ex. your preferences, your strengths, your needs).
2. To what extent do you like making choices in how you learn in school? (For example, do you like choosing the kinds of texts you will be reading or how you take notes?) Responses on a 4-point scale from “I don’t like making choices about how I learn in school” to “I love making choices about how I learn in school.”
3. Explain your response to the previous question.
4. To what extent is the following statement true for you? “Making choices in my learning is stressful for me.” Responses on a 4-point scale from “Not true at all” to “Very true.”
5. To what extent is the following statement true for you? “I feel like I am going to need a lot of support from my teacher in this project.” Responses on a 4-point scale from “Not true at all” to “Very true.”
6. Here is a list of some ideas I have for giving you an opportunity to have input in the learning process in this project. In your opinion, how important is each of these to you as a learner? Responses on a 4-point scale from “Not at all important to me” to “Very important to me.”
   a. Having input in the texts I use to do research
   b. Having input in the kinds of media I explore (ex. video, websites, audiobooks, books, articles, etc.)
   c. Having input in the graphic organizers I use to organize my thinking
   d. Having input in how I take notes
   e. Having input in whether I work alone, with a partner, or in a small group
   f. Having input in where I work in the classroom.
   g. Having input in when I want to check in with my teacher
7. What other choices, if any, would you like to make in relation to HOW you learn throughout this project?
8. What ideas do you have for how I can help you make smart choices in your learning?
9. What concerns, if any, do you have about making choices in how you learn in this project?
10. Is there anything else that you think it would be helpful to share with me in anticipation of the HJL project?

Mid-Project Prompts

1. What, if anything, are you discovering about yourself as a learner by working on this project (ex. your preferences, your strengths, your needs)?
2. Do you like making choices about how you learn as a part of this project? Responses on a 5-point scale from “I don’t like making choices about how I learn as part of this project” to “I love making choices about how I learn as part of this project.”
3. Explain your response to the previous question.
4. To what extent is the following statement true for you? “Making choices in my learning has been stressful for me in this project so far.” Responses on a 4-point scale from “Not true at all” to “Very true.”
5. Have you come to like choice more or less while participating in this project? Responses on a 4-point scale from “I have come to like choice a lot less” to “I have come to like choice a lot more.”
6. Explain your response to the previous question.
7. To what extent is the following statement true for you? “I feel like I need more support from my teacher in this project.” Responses on a 4-point scale from “Not true at all” to “Very true.”
8. Which of the following choices have been important to you in this project so far? Responses on a 4-point scale from “Not at all important to me” to “Very important to me.”
a. Having input in the texts I use to do research
b. Having input in the kinds of media I explore (ex. video, websites, audiobooks, books, articles, etc.)
c. Having input in the graphic organizers I use to organize my thinking
d. Having input on how I take notes
e. Having input on whether to abandon an idea or stick with it
f. Having input in whether I work alone, with a partner, or in a small group
g. Having input in where I work in the classroom
h. Having input in when I want to check in with my teacher
i. Having input in the kind of prototype I create for my project
j. Having input on how much time I spend on each part of the hands-joined project (ex. planning, research, prototyping, etc.)
k. Having input on the order in which I work on each part of the HJL process (ex. planning, research, prototyping, etc.)

9. What other choices, if any, would you like to be making in relation to HOW you learn throughout this project?
10. What concerns, if any, do you have about making choices in this project so far?
11. What ideas do you have for how I can help you make smart choices as we continue working on this project?
12. Is there anything else that you think it would be helpful to share with me about your experiences so far with the HJL project?

Post-Project Prompts

1. What, if anything, did you discover about yourself as a learner by working on this project (ex. your interests, talents, preferences, strengths, needs)?
2. Did you like making choices about how you learn as a part of this project? Responses on a 5-point scale from “I did not like making choices about how I learn as part of this project” to “I loved making choices about how I learn as part of this project.”
3. Explain your response to the previous question.
4. To what extent is the following statement true for you? “Making choices in my learning was stressful for me in this project.” Responses on a 4-point scale from “Not true at all” to “Very true.”
5. Have you come to like making choice in how you learn more or less while participating in this project? Responses on a 4-point scale from “I have come to like choice a lot less” to “I have come to like choice a lot more.”
6. Explain your response to the previous question.
7. To what extent is the following statement true for you? “I feel like I could have benefited from more support from my teacher in this project.” Responses on a 4-point scale from “Not true at all” to “Very true.”
8. How important to you were each of the following choices in this project? Responses on a 4-point scale from “Not at all important to me” to “Very important to me.”

a. Having input in the texts I use to do research
b. Having input in the kinds of media I explore (ex. video, websites, audiobooks, books, articles, etc.)
c. Having input in the graphic organizers I use to organize my thinking
d. Having input on how I take notes
e. Having input on whether to abandon an idea or stick with it
f. Having input in whether I work alone, with a partner, or in a small group
g. Having input in where I work in the classroom
h. Having input in when I want to check in with my teacher
i. Having input in the kind of prototype I create for my project
j. Having input on how much time I spend on each part of the hands-joined project (ex. planning, research, prototyping, etc.)
k. Having input on the order in which I work on each part of the HJL process (ex. Planning, research, prototyping, etc.)
9. What other choices, if any, do you wish you could have made in relation to HOW you learned throughout this project?
10. Looking ahead to the next time we do a hands-joined project like this, what concerns, if any, do you have about making choices in the next project?
11. Looking ahead to the next time we do a hands-joined project like this, what ideas do you have for how I could help you make smart choices in the next project?
12. Is there anything else that you think it would be helpful to share with me about your experiences with the HJL project?

Appendix B. Student Interview Protocol

Intro

First of all, thank you so much for being willing to talk to me today. I am so grateful that you were willing to share your experiences with me. I work at the University of Vermont and am part of a research team that is very interested in student experiences with new teaching approaches. We think that talking with students about their experiences is an important way to learn about teaching. Our goal in talking with you today is to learn a bit about your experiences with the recent HJL project. We are going to ask you some questions and you should know that there are no “right” or “wrong” answers to these questions since they are all about your opinion and your experiences. The responses you give are also not being used to evaluate your teacher or you. We are very much looking forward to learning from what you say, and again, we are so grateful that you were willing to talk!

1. (Ask student to open up “HJ Finished Project” document so you can look at it together.) Tell me a bit about the work you created as part of your HJL project.

   *Note: Try to make this as free-flowing a conversation about the work as possible, asking questions that emerge in the conversation and showing interest in the project.

2. Tell me a bit about what you have learned while working on your HJL project.
3. What did you find out about yourself as a learner while working on your HJL project?

   * Tell me more about that …
   * Can you give a specific example?
   * What did you learn about how you work best? For example …

   i. Quiet vs. noise
   ii. Where to work
   iii. Need for adult support
   iv. What kinds of media to explore when researching
   v. How to take notes
   vi. Individual vs. working with others
   vii. Working toward a clear final product

   * What about this project that helped you learn these things about yourself?
   * Did you know these things about yourself before this project?

4. Can you talk to me about your overall experience with your HJL project?

   **Follow-Up Prompts (Only if student doesn’t offer up much in response to the first set of prompts):**

   * What words would you use to describe your time working on your HJL project?
   * What, if anything, have you enjoyed about your time working on your HJL project?
   * What, if anything, have you disliked about your time working on your HJL project?
5. In the input you provided at the start of the semester, you shared that [filled in with student response related to liking choice from the pre-project input form]. Tell me more about that. Can you explain why that is? Can you give an example?

6. In the input you provided at the end of the semester, you shared that [filled in with student response related to liking choice from the post-project input form]. Tell me more about that. Can you explain why that is? Can you give an example?

**Follow-up Prompts** (Only if student doesn’t offer up much in response to the first set of prompts):

- What has been your favorite part about making choices in how you learned for the project? Can you give example?
- What was your least favorite part about making choices in how you learned for the project?
- Include quotations of what they said in short answer responses on survey if they did not provide more detailed answers to the general questions.

7. In the input you provided, you shared that [filled in with student response related to liking choice more or less from the post-project input form]. Can you explain why that is? Can you give an example?

**Follow-up prompts:**

- What specific parts of the project made you like choice more/less?

8. In the input you provided at the start of the semester, you shared that [filled in with student response related to feelings of stress in making choices from the pre-project input form]. Tell me more about that. Can you explain why that is? Can you give an example?

9. In the input you provided at the end of the semester, you shared that [filled in with student response related to feelings of stress in making choices from the post-project input form]. Tell me more about that. Can you explain why that is? Can you give an example?

**Follow-up Prompts** (Only if student falls into “high or higher stress” category)

- Is there anything that would have helped you feel less stressed about making choices?
- Do you think having more practice making choices about your learning will make it any less stressful for you? Why or why not?

10. Is there anything else you would like to share with me about your experiences making choices in how you learned this semester?