

Rethinking Students' Role in Assessment to Promote Greater Equity: Learning from Del Lago Academy

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About This Series

This series of field-facing memos describes promising assessment for learning practices. The series examines the various ways in which Assessment for Learning Project grantees are using, adapting, and creating assessment practices oriented to learning. To see the full series, please visit https://edpolicy.stanford.edu/library/publications/Assessment_for_Learning_Project This research is made possible with funding from the Center for Innovation in Education at the University of Kentucky.

The [Assessment for Learning Project](#) (ALP) is a multi-year grant program and field-building initiative designed to fundamentally rethink the roles that assessment can and should play to advance student learning and improve K-12 education in the United States. If assessment is to become a lever for improving individual students' opportunities and capacities to learn, then assessment must also become a lever for achieving more equitable education outcomes because it is not possible to achieve excellence without equity. Led by the Center for Innovation in Education (CIE) at the University of Kentucky in partnership with Next Generation Learning Challenges (NGLC) at EDUCAUSE, the ALP initiative aims to develop the field's professional capacity to design and assess learning experiences in ways that simultaneously promote meaningful and equitable student learning. ALP borrows its definition of equity from the National Equity Project:

Educational equity means that each child receives what he or she needs to develop to his or her full academic and social potential. Working towards equity involves:

- *Ensuring equally high outcomes for all participants in our educational system; removing the predictability of success or failures that currently correlates with any social or cultural factor*
- *Interrupting inequitable practices, examining biases, and creating inclusive multicultural school environments for adults and children*
- *Discovering and cultivating the unique gifts, talents, and interests that every human possesses.*

This definition of equity points out that children need different supports or experiences to achieve their full potential. This memo, which is the first in a series of five, explores some of the assessment for learning practices that the initiative is supporting.

Insights about Assessment for Learning Practices

- Students learn to take responsibility for their learning when they have opportunities to co-create learning and assessment experiences; they may still need support to develop the confidence and skills to ask that their needs be met.
- Engaging students as agents for their own learning fundamentally changes the teacher-student relationship.
- Teachers need to be alert to how students come to understand and make sense of content.
- Students can help ensure that the assessments actually support their learning by working with teachers to provide feedback on assessments.
- If educators intend to empower students to take responsibility for their own learning in a way that promotes equity, then educators need to be alert to and address issues of equity, privilege, and status. For instance, educators need to consider how to prepare students for experiences of inequity to which they may be exposed through internships and work-based learning experiences.

Why Assessment for (Rather Than of) Learning Is Needed

Most educators recognize that standardized tests are inadequate for knowing how to improve student performance and teaching practice. They are best used as a mechanism for evaluating and sorting students. Many would also agree with researcher David Conley who observed, “Over the past ten years, educators have learned the distinction between summative and formative assessments,” (2015, p. 27). Yet, Linda Darling-Hammond, Gene Wilhoit, Linda Pittenger (2014), David Conley (2015), and others have argued that educators still need to deepen their assessment knowledge and use a broader range of assessments in order to prepare students adequately for college and career. They point to recent research that has identified “a much more comprehensive, multi-faceted, and rich portrait of what constitutes a college-ready student,” and argue that we now know adequate preparation for college and career will require “much more than content knowledge and foundational skills in reading and mathematics,” (Conley, 2015, p. 12). Thus, they describe the increasing importance for

students to know how to handle assignments or tasks that do not have one right answer, to raise pertinent questions, to gather additional information, to reason with evidence and, ultimately, to make judgments in complex and dynamic situations.

Developing such abilities in our youth will ensure that students are engaged in what they are learning and have ample opportunity to develop the necessary skills and dispositions to manage complexity. Standardized assessments neither teach nor measure such skills. Therefore, to ensure students are well prepared to succeed in college and career, they will need to experience an array of learning experiences that, by design, integrate instruction and assessment. Indeed, assessment for learning fundamentally changes the relationship between assessment and instruction. The sorts of meaningful and ambitious learning experiences that students need must involve an interplay between instruction and assessment where one informs the other continuously. Students do need to learn to think deeply, to reason with evidence, to make connections across subjects, and to formulate meaningful questions. Assessment

for learning practices support students to learn within the context of an experience. These practices can provide access to activities that both develop and measure ambitious learning and, in so doing, their use yields information that can help students learn. In these ways, assessment for learning practices are also important levers for equity.

ALP Grantees are Developing Assessment for Learning Practices

Given the significant need for the development and use of assessments that promote and measure more complex student-learning outcomes, ALP has awarded grants to a group of [diverse grantees](#)—including charter school organizations, a state department of education, public school districts, and intermediary organizations—that are developing assessments and assessment practices that foreground learning. In its unique approach to grant making, ALP actively supports its grantees and the organizations they serve to continue to learn in and from their individual and collective assessment for learning work. This memo offers a description and analysis of one grantee’s promising assessment for learning practices. The grantees featured in this and subsequent memos were selected with ALP’s assistance and represent the full range of grantee-types in the project. The aim is to identify and observe promising assessment for learning practices in use by grantees, learn about the development and implementation of these practices, and consider to what extent these practices advance ALP’s [learning agenda](#).

Assessment as a Lever for Equity at Del Lago Academy

Del Lago Academy of Applied Sciences (DLA) is a small public high school in Escondido, California that educates a diverse group of scholars to develop [industry-specific skills](#) and expand their social networks and access to opportunities.¹ It saw that the STEM job market was rapidly growing in the region and was concerned that many students, particularly

minority and low socio-economic students, were graduating high school in the area without the needed skills and knowledge to prepare them for these STEM jobs. Thus, DLA set out to develop a program of study for its students to provide them with knowledge and skills to succeed in STEM jobs and simultaneously develop a demand within the regional STEM industry for DLA students.

In pursuit of its mission, DLA developed [Competency X](#), which is “an assessment approach for workforce-informed performance tasks.” DLA views Competency X as a way “to broaden access to college and career opportunities” for its students in the life sciences. DLA’s big idea is that digital badges, which focus on biotechnology knowledge and skills and personal effectiveness, are co-created with industry and college partners to measure students’ attainment of specific industry knowledge and skills. Students also contribute to the development of badges. The vision is for students to use their earned badges as a type of currency to gain access to internships and/or to earn college credit.

Teachers use a competency-based system of assessment to support students in developing knowledge and skills along a series of learning progressions that demonstrate how students can develop expertise with science and engineering practices. DLA uses the National Research Council’s definition of [learning progressions](#) in science, which “are testable hypotheses about how students’ understanding of, and ability to use, core scientific concepts...grow and become more sophisticated over time.” DLA aims not only to educate students to achieve mastery of core ideas in the science disciplines, but also to learn the processes of conducting scientific inquiry and to develop self-knowledge. DLA provides many opportunities for students to reflect on their own personalized learning journey as they work toward earning digital badges by accumulating evidence of their learning in a digital portfolio. Because DLA

¹ At DLA, 70% of the students are non-white.

uses a competency-based system and has a no failing grades policy, students can (and are expected to) continue to learn material until they can demonstrate understanding of that material.

The remainder of this memo describes how DLA students participate in the creation and refinement of science assessments and how the students use a competency-based assessment process to advance their own learning. An up-close look at a few of DLA's assessment practices provides an opportunity to consider the conditions under which students' co-creation of assessments enable ownership of their learning and can become a strategy for equitable educational outcomes.

Students Partner with Teachers to Refine Assessment Rubrics

Science teachers work with students to develop and refine an assessment of a learning experience that is embedded into the science course and, through this process, develop a practice that supports student learning. In so doing, DLA intentionally connects its assessment practice to opportunities for learning. For example, in eleventh grade, DLA students learn about a polymerase chain reaction (PCR), a technique used in biochemistry to make copies of a specific segment of DNA. While teachers consult with industry and college experts to ensure that students are being taught and held to a sufficiently high standard of learning about PCR, they also consult with students. During a lunch meeting with students, students are asked to describe their experience with a PCR instructional task, accompanying materials, and the rubric that was used to assess their performance and levels of understanding. Initially, teachers wanted to know if students thought the rubric, which was developed to include instructional properties, was “a useful tool” for them to attain higher levels of understanding of PCR. Students' answers to this question were important to teachers, in part, because few students had thus far demonstrated a high level of competence with PCR and because teachers wanted to develop assessment materials,

like rubrics, that genuinely aided students' learning. As they listened to the students with a genuine desire to help them understand PCR, the inter-relationships among the assessment, task, and instruction were apparent. The six students at the meeting told the three teachers with whom they were paired that the large amount of text on the rubric was “overwhelming” and that they rarely used the descriptors of the criteria levels to understand the quality of their own work or what changes they needed to make. Students said that they preferred their teachers' comments and personalized feedback. At once, the teachers realized that both the rubric and the task needed refinement. In addition, teachers learned that the PCR task directions were too cumbersome. From such intentionally designed conversations, students develop self-knowledge as learners and learn to take ownership of their learning; in so doing, they also discover ways in which assessments can be used to support their learning.

Opportunities for Teachers to Develop Greater Knowledge of How Students Learn

Giving each student what he or she needs to develop his or her full academic and social potential requires knowing the needs of individual students. A changed relationship between instruction and assessment can help adults come to know the strengths, interests and needs of their students better. Sessions, such as these, with a handful of students are intimate and become occasions when students' learning experiences are specifically sought out by adults. These conversations are valuable for teachers and for students. When students report their experiences as learners—doers of a task and users of assessment criteria—their descriptions can help teachers to detect aspects of instruction and assessment practice that need to be improved. Indeed, one teacher said, “Paying attention to the scholars' eyes and where they go [on the rubric] can help us with the re-design.” The students' reported experiences with the PCR task and assessment criteria provided critical information to the teachers to help them know how to refine the PCR task and rubric.

Opportunities to Develop Self-Knowledge as a Learner

For students, having a conversation about how they experienced a specific learning experience requires some level of metacognition and can help students better understand themselves as learners. For example, students were asked to notice the particular features of a task that contributed to and/or got in the way of their learning and to identify assessment criteria or learning progressions that were helpful and/or unclear. Through such teacher-student consultations about how students actually experienced working toward mastering a particular badge, students can learn how to engage more deeply in their learning. Knowing how to take responsibility for and advance one's own learning requires a set of skills that most students, accustomed to a passive role in school, often have no opportunity to develop. Through such experiences, DLA students practice noticing and describing what they personally need in order to develop greater competency with a set of skills or higher levels of understanding. These opportunities, thus, also become a way to promote educational equity: students are able to describe the particular and individual instructional supports that they need.

Students Co-Create Digital Badges

Another way students at DLA take ownership of their education and become advocates for their particular learning needs is through the co-construction of digital badges. The co-creation of digital badges occurs as part of the eleventh grade internship program in which all students participate. To support the students in this work, they have both a school-based internship advisor and a mentor at the internship site. In their internships, students have responsibility for formulating what they are going to learn and come to see why learning particular knowledge or skills matters for specific jobs in the biotech industry.

Internship Sites Where Students Identify Learning Goals and Tasks

An unusual aspect of DLA internships is that students are expected to take responsibility for shaping their learning experiences and for learning specific, industry-relevant skills during their internship. From the outset, students direct their own learning by choosing the company or organization in which they would like to intern. For most students, this involves conducting some research to identify organizations where their particular learning interests and needs might be met. With students' interest as a guide, internships occur in a variety of organizations—biotech companies, hospitals, auto mechanic shops, and social service agencies. DLA does a lot of work to identify, recruit, and support high quality internship locations.

Once in an internship, students continue to direct their own learning by working with their internship site mentor to develop criteria for earning a digital badge that is akin to the badges students pursue in their science classes. A school internship advisor said, “We try hard to put the responsibility on the scholars to initiate that conversation [with their mentor], including explaining what a digital badge is and why they need to have this conversation.” This advisor explained that DLA conveys “preliminary information to our mentors to prepare them for the scholar to come in and have the deeper conversation....” DLA expects each student to initiate a conversation with his/her mentor about relevant industry knowledge and skills and about what the student would like to learn. Part of this conversation entails a discussion about what the student will do during the internship to learn those skills and to demonstrate their learning. Each student is positioned in his/her internship to direct aspects of his/her learning and be held responsible for learning something important within a particular field. This expectation and accompanying processes ask students to take responsibility for their learning in significant ways, while at the same time teaching them how to advocate for their needs in a work setting.

Internships Can Challenge Students' Capabilities to Own Their Learning

The expectation that students take responsibility for their own learning during their internships is demanding and can intimidate or overwhelm some students—even with the preparation and supports that DLA provides to its students. Teachers in the role of internship advisor prepare students to have conversations about their own learning interests and needs with their internship mentors. Students have opportunities to practice participating in mock versions of these conversations prior to arriving at their internship site. Even so, students' capacities to engage in these conversations, as well as the particular circumstances at each internship site, differ. The story of one DLA student, whom we call Fred, illustrates some of the individual and organizational challenges involved in supporting students to learn how to advocate for their learning interests and needs within the context of the workplace setting.

Fred's Internship Experience

Fred sought out and participated in a radiology internship. He talked with his mentor about his internship goals as he was expected to do. After the first days of his internship, where he worked directly with a radiologist and witnessed MRI's and other sorts of x-rays, he found himself stuck updating patients' records in the database. These tasks felt to him like "busywork." So, he asked his teacher/internship advisor if she would "come in and mediate a conversation" between him and the radiologist, which his teacher agreed to do. The teacher recounted that Fred was able to "reiterate the importance of the badge and the kind of work he was looking for in order to earn a meaningful micro-credential." Fred explained he was interested in

learning about the different types of radiology tests; he proposed that he "create an information brochure for [the radiologists'] practice that explained to patients in layman's terms the difference between the tests and the reasons a doctor would order one over another." The radiologist thought his project idea would be a meaningful contribution to the workplace. She also explained to Fred the importance of updating the patient database: "The practice couldn't function without it...updating referrals and making sure [the radiologists] have positive relationships with doctors" is essential. Talking about their individual needs generated reciprocal learning for both the internship mentor and student. The teacher recounted that, afterward, Fred told her he was "really nervous" to talk with the radiologist, but he learned that having a conversation was "all that was necessary to change his entire experience." According to his teacher, "He recognized his change agency."

Fred's story reminds us that not all students will have immediate success in either articulating what sorts of knowledge and skills they would like to learn or in managing a conversation with their internship mentor that actually results in experiences that will lend themselves to learning that knowledge or those skills. Managing the power difference between the mentee and mentor adds another layer of complication. Fred's story suggests how expecting students to co-create the digital badge can serve as a mechanism that helps facilitate this conversation and navigate this complicated power dynamic. However, not all students will persist, seek out help, or even realize renegotiating aspects of their internship experience is possible. In addition, when students do seek out help from DLA advisors, advisors need to have the time and wherewithal to be able to provide students with the individual support they need to

advocate for their learning interests and needs. Since internships take place off-site and at a wide variety of locations, providing this support to students can be logistically as well as relationally challenging for teachers.

Internships Can Challenge Opportunities for Equity

In independent, out-of-school learning environments, such as internships, students may confront a variety of inequities that stem from biased institutional structures and/or an under-representation of people in the workplace of different socio-economic classes, races, and/or genders. This reality was encapsulated by another DLA student's experience whom we call Claudia. Claudia, a student of color, did her internship at a biotechnology lab. She conducted experiments alongside her white male mentor. She got to do everything he did, which she appreciated. What surprised her though was, "No one in the laboratory looked like me—except the receptionist!" Commenting on Claudia's experience, an internship advisor said that students' exposure to inequities in the workplace "happens with enough frequency that we've all noticed it...." This internship advisor elaborated, "For some students ...[experiences like Claudia's] develop a great sense of urgency to move towards equity. For other scholars, it's been intimidating, and [then] it's been a lot of work to get scholars to remain committed to their initial goals of being in those fields."

The reality that students come face-to-face with society's inequities when they participate in internships necessitates that schools figure out how to prepare students for learning for these experiences too. Students need to receive the knowledge and skills that they require to confront or respond to these inequities in ways that do not cause the student harm. Helping students to be able to respond to these workplace and societal inequities in productive ways, which do not deter them from pursuing their learning interests and goals, is enormously challenging for a school to undertake—and goes well beyond merely providing all students

with access to workplace opportunities in various fields and industries. Pursuing equitable education requires much more than merely providing access to authentic opportunities for learning traditional content. DLA is committed to developing the learning experiences and instructional practices that will help students be able to respond productively to society's inequities; doing so will assist students from historically marginalized communities to not only gain access to but also succeed in the STEM field.

Related Challenges Worth Considering

Empowering students as agents for their own learning fundamentally changes the teacher-student relationship. Teachers must understand (and look out for) how students come to understand and make sense of content, which will vary from student to student. Sometimes students, like Fred, will need individual supports in order to take full advantage of the learning opportunity at hand. Teachers will need to be sensitive to how students from different backgrounds, communities, and experiences respond to these opportunities. Teachers, especially those of a different race and socio-economic background than their students, will need to remain alert to their own unconscious biases about what they believe is in their students' best interests as well as be attuned to what students perceive is in their own best interests. Teachers will also need to look for evidence that shows how well their efforts to enable students to advance their own learning are actually working and to what ends.

Teachers will also need to learn *how* to create learning environments—tasks, assessments, routines, and classroom structures—where students can advance their own learning, shape their own futures, and receive support to do so in the most effective way. This requires explicit knowledge about cultural diversity and instructional strategies that go beyond what is typically taught in teacher education programs (Gay, 2002). Intentional instruction is required

to make sure that supporting students to become agents of their own learning actually becomes a strategy for equitable educational outcomes. Both the students and the teachers need to possess a clear and shared understanding of the learning goals. Classroom structures and routines need to be established that support students to learn how to take responsibility for their learning. Issues of equity, privilege, and status will need to be considered—from multiple perspectives and vantage points—and revisited often. An inherent tension exists in most schools where, even if students have the power to advance their own learning, they ultimately do not get to decide what content and skills need to be learned or what counts as evidence that the content and skills were indeed learned.

Reflection Questions

The reflection questions below are intended to spark consideration about how efforts to enable students to advance their own learning may (or may not) also be a strategy for ensuring equitable educational outcomes for all.

- One example of co-developed assessment at Del Lago is the facilitated session where students provided feedback to teachers on a scoring rubric. This helped teachers refine the rubric and assessment task while also providing students the opportunity to build a better understanding of themselves as learners. What kinds of conditions, mind-sets, and relationships need to be cultivated to have this kind of meaningful feedback take place? Are there assessment practices in your school or district where student feedback could both improve the practice and support learning?

- In the story of Fred's internship experience, he used his digital badge as a concrete means of communicating his learning goals with his internship supervisor and teacher. What are the basic design principles underlying that assessment practice that made it an effective vehicle for this student to take responsibility for his learning? How might you apply those principles to an assessment practice in your school or district?
- This memo led with a definition of educational equity from the National Equity Project (NEP). How well does NEP's definition align with how equity is defined in your context? How do the examples of students co-owning assessments at Del Lago Academy demonstrate components of working toward equity? Could you hold up a similar equity frame to an assessment practice in your school or district?

References

- Conley, D. T. (2015). A new era for educational assessment. *Education Policy Analysis Archives*, 23(8).
- Darling-Hammond, L., Wilhoit, G., and Pittenger, L. (2014). *Accountability for college and career readiness: Developing a new paradigm*. Stanford, CA: Stanford Center for Opportunity Policy in Education
- Gay, G. (2002). Preparing for culturally responsive teaching. *Journal of Teacher Education*, 53(2), 106-116.
- National Equity Project. (n.d.). Why equity? *National Equity Project*. Retrieved from <http://nationalequityproject.org/about/equity>



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