Activity 6.2: All About Conference Proposals

This activity provides readers with sample conference proposals they can use to inspire the sharing of their own work at conference.

Time: 30–45 minutes

Materials: Downloadable Sample Conference Proposals

Step 1: Share the following information with the group: Conference organizers send out a "Call for Proposals" several months before a conference event to build the conference program. These "Calls" contain explicit instructions for submitting a proposal to present. Instructions for completing a proposal will vary in length, with some proposals requiring as little as a title and brief description of a session and others requiring quite detailed information about all of the main components of your work.

Step 2: Download and share the two sample conference proposals completed by teacher researcher Mickey MacDonald (who readers have already met in previous chapters and will learn more about in Chapter 7). Explain that the first proposal was written to present at the American Educational Research Association. This represents the most extensive call for proposal format that we are aware of in the field. The second proposal is much simpler in nature, and is an example of a proposal Mickey submitted with two of her colleagues regarding using cycles of teacher inquiry to move a school forward for presentation at the New England Secondary Schools Consortium School Redesign in Action: Learn and Lead for Equity conference. Rather than reporting on a cycle of inquiry, this proposal is about the ways Mickey's school uses inquiry as a mechanism for professional development.

Step 3: Lead a discussion related to how these sample proposals compare and contrast with one another. Use the discussion as an impetus to "be on the lookout" for "Call for Proposals" from local and national organizations and like Mickey, writing and submitting a proposal to present work on a state, regional, or national stage.

The Role of Differentiation and Standards-Based Assessment in Detracking Efforts in an Honors Biology Classroom

Mickey MacDonald

One accepted practice in education that teachers can use to effect significant change in how students perceive themselves as learners and potentially impact future opportunities for all students is through the elimination of academic tracking. Academic tracking refers to the assignment of students into separate, leveled classes based on standardized test scores, IQ measurements, perceived academic ability, prior classroom achievement, and teacher recommendations about student academic potential, motivation, and work ethic (Burris & Garrity, 2008; National Association of Secondary School Principals [NASSP], 2006; Oakes, 2005; Tyson, 2013).

One of the main reasons that our ninth-grade team eliminated tracking in our classes was to increase equity for all learners. The literature showed that achievement of students who traditionally are placed in a less rigorous track increases when those same students are placed in mixed ability classes (Burris, 2006; Rui, 2009; Watanabe, 2012) and that both struggling and advanced learners benefit from heterogeneous group work (Cohen & Lotan, 1997; Oakes, 2005; Watanabe, 2012) provided that students are supported to meet rigorous course standards (Burris, 2014; Tyson, 2013). Even as I eliminated tracking in my biology classroom, an achievement gap persisted between my African American students and white students and between my white female students and white male students.

Although the larger problem of practice that exists in most American high schools is academic tracking, eliminating this practice results in the emergence of an underlying problem of practice: meeting the learning needs of an increasingly diverse student population since learner variability increases in detracked classrooms (Burris & Garrity, 2008; Watanabe, 2012). Having established this underlying problem of practice, the research question that guided my practitioner study was

> *In what ways does differentiated instruction and standards-based assessment support struggling learners and challenge advanced learners in a detracked, honors biology classroom?*

To study this problem of practice, I used practitioner research defined by multiple scholars as the systematic study of one's own teaching practice through collaborative discourse and individual reflection around specific data pieces collected during the planning, implementation, and analysis phases of the practitioner research study (Campbell, 2013; Cochran-Smith & Lytle, 1993, 2009; Dana & Yendol-Hoppey, 2008, 2009; Lytle, 1996). Specifically, I examined both the development and the implementation of a differentiated, standards-based unit of study around the conceptual topic of protein synthesis, considered to be the central dogma of molecular biology.

As I engaged in this practitioner research study, I initially collaborated with a larger professional learning community (PLC) whose members held multiple roles within our district to develop the standards-based learning targets, proficiency scales, and preassessment that would guide the development of this particular instructional unit. I then collaborated more closely with my core PLC partners during the development and implementation phases of this unit. Not only did my core PLC partners help me develop the formative and summative assessment pieces, but they also helped to integrate two research-based practices to address differentiation: tiered instruction and Argument Driven Inquiry (ADI).

Although I implemented this instructional unit across all four of my sections of honors biology, I formally collected data with a subset of my struggling and advanced learners within one section. Since an integral component of the data that I collected in this practitioner research study was the collaborative conversations that I had with my core PLC partners, I selected ten students from the class in which a member of my core PLC supported students in biology. Of these ten students, two were scoring at the highest levels on all assessments in biology and had historically scored at the highest level on state, standardized reading exams. I refer to these students as advanced learners (AL). Four students were high achieving in other classes but not in biology

and had scored on grade level on state, standardized reading exams. I refer to these students as strong learners who struggle in biology (SLSB). The final four students were struggling learners in biology and in their other classes and had historically scored below grade level on state, standardized reading exams. I refer to these students as struggling learners (SL). Table 1.1 shows the breakdown of these learners by gender, race, and socioeconomic status.

During the development and implementation of this instructional unit, I kept a practitioner reflection journal in which I chronicled what was happening within this study. Initially, I wrote notes about discussions that I had with members of both PLCs during the develop- ment phase of this unit. Then, I captured what was happening each class period during the implementation phase of the unit. Finally, I captured what my core PLC partner and I shared during debriefing sessions that occurred in the implementation of the ADI investigation, one of the research-based strategies we selected for differentiation. In addition to the practitioner reflection journal, I also collected student artifacts throughout the implementation of this unit, as well as formal and informal student interviews.

Developing a differentiated, standards-based instructional unit on the conceptual topic of protein synthesis laid the ground-work for studying how such a unit influenced the science learning of my struggling and advanced learners within my detracked honors biology classroom. The deconstruction of state standards into student-friendly learning targets was a critical component needed to examine formative assessment data to make instructional decisions about differentiation within the act of teaching. Only when learning targets are aligned with formative assessments can a teacher make instructional decisions about next steps in the learning process (Black et al., 2003; Black & Wiliam, 2009; Tomlinson & Moon, 2013). Similarly, only when students are aware of the learning targets and what constitutes mastery can they self-assess and make decisions about next steps they need to take toward mastering learning goals (Stiggins et al., 2006; Watts-Taffe et al., 2012). These two points were illustrated in my study.

As I implemented the differentiated, standards-based unit I developed on protein synthesis, I realized that both homogeneous grouping and heterogeneous grouping were needed to ensure that all learners were supported when they were not meeting proficiency of the learning goals and were challenged to exceed proficiency once they had met mastery of the learning goals. I present three claims related to the role homogeneous grouping played in supporting struggling learners and challenging advanced learners in my detracked, biology classroom:

- Claim 1: Preassessment that is based on unit outcomes is not useful for determining homogeneous groups for tiered instruction.

- Claim 2: Decisions about differentiation and grouping for differentiation must be made in the act of teaching using formative assessment results.

- Claim 3: Flexible homogeneous grouping structures are effective for both struggling and advanced learners in a detracked, biology classroom.

Even though the preassessment that I administered in this unit did not show differences in my students' background knowl-edge related to or current understanding of protein synthesis, my students naturally progressed through the learning goals at different rates. However, even as I used formative assessment to homogeneously group students for Tier 2 instructional activ-ities and for challenge activities, group composition changed throughout the unit as students' academic needs changed. These results contradicted the results Richards and Omdal (2007) found in their study that examined tiered grouping for differenti-ation in a ninth-grade astronomy classroom.

Richards and Omdal (2007) assert that preassessment results can be used for grouping students for tiered instruction for the duration of an instructional unit. If my students' preassessment results had indicated differences in student background knowl-edge related to protein synthesis and I had placed them into groups to receive tiered instruction for support or challenge for the duration of the unit, I would neither have been aware of nor been able to meet the changing learning needs of my struggling and advanced learners. I would have effectively reintroduced tracking within my detracked classroom.

What we learn from my study is that homogeneous grouping can indeed play an important role in instruction for all learners, but for it to do so, unit preassessment must be based on learner readiness rather than on mastery of outcomes for the unit. In addition, many decisions about differentiation and grouping for differentiation cannot be predetermined before the act of teaching but must occur as the act of teaching unfolds. Finally, we learn in this study that in order to meet the needs of both struggling and advanced students, homogeneous grouping for instructional activities must be fluid and flexible.

Although homogeneous grouping played an important role in helping my students attain mastery of the learning goals when they were struggling with particular learning targets, heterogeneous grouping played an equally important role in challenging both my struggling and my advanced learners within this mixed-ability classroom to develop a scientific argument through collaborative inquiry in order to exceed proficiency of the learning goals. I present a fourth claim related to the role heterogeneous grouping played in supporting struggling learners and challenging advanced learners in my detracked, biology classroom:

- Claim 4: Heterogeneously grouping students for argumentation through engagement in science inquiry serves to both reinforce proficiency of learning goals for struggling learners and simultaneously push all learners toward advanced proficiency.

All students can successfully engage in scientific inquiry to move beyond proficiency of the learning goals when grouped heterogeneously because they are able to use one another as academic resources within their heterogeneous groups (Cohen & Lotan, 1997). Additionally, students in heterogeneous groups that engage in ADI share responsibility for the collective learning of their peers and achieve this responsibility through collaborative discourse in which they question each other's findings and come to consensus regarding their group's scientific argument.

Because the final product in ADI is an individual, written investigative report, each student is assessed against the same rigorous, academic performance standards. Heterogeneous group-ing plays a dual role in the ADI process to ensure that all students can successfully meet these rigorous performance standards.

First, heterogeneous grouping reinforces proficiency of learning goals for struggling students who benefit from frequent revisiting of the learning targets that build to learning goal proficiency. Second, all learners contribute various knowledge and skills throughout the three phases of the ADI process. This knowledge and these skills can be accessed by all learners through academic discourse within heterogeneous groups and between heterogeneous groups, and can then be used by all students as they are challenged to write an investigative report that meets the rigorous, performance standards.

Based on what I learned from this cycle of practitioner research, I will continue to study the roles that differentiation and standards-based grading play in creating more equitable biology classrooms for all learners by

- developing and enacting more units that are differentiated and standards-based;
- developing preassessments that are not based on proficiency of the learning targets but rather on learner readiness to engage with the content;
- looking for instructional activities that can be enacted to challenge advanced learners prior to a unit's implementation so that I have time to provide Tier 2 instruction within the act of teaching a unit;
- developing more formative assessment strategies within a unit to determine groups for tiered instruction;
- creating more opportunities for students to work in collaborative instructional groups; and
- finding appropriate opportunities across units to incorporate different aspects of the ADI process as well as places within units to integrate entire ADI investigations.

In this session, I will provide an overview of my problem of practice that led to my research question. I will situate my question within the intersection of multiple bodies of literature: the achievement gap, tracking, differentiated instruction, standards-based grading, and practitioner research. I will elaborate on my data collection and data analysis in order to reveal the four claims that I have made within this paper.

Additionally, I will provide excerpts from my practitioner reflection journal, student arti- facts, and student interviews as the evidences that led me to each of the claims. Finally, I will share how engaging in multiple cycles of practitioner research has moved me from a novice teacher inquirer to an experienced practitioner researcher. This evolution has resulted in my adoption of an inquiry stance on my practice that can be seen in the nuanced ways with which I now approach practitioner research and my facilitation of others as they engage in practitioner research.

Table 1.1   Gender, Race, and Socioeconomic Status of Ten Biology Students

TYPE OF LEARNER	GENDER	RACE	SOCIOECONOMIC STATUS
AL	Female	Multiracial (Hispanic/White)	2
AL	Male	Hispanic	2
SLSB	Female	White	4
SLSB	Female	White	4
SLSB	Male	White	4
SLSB	Male	White	2
SL	Female	Black	3
SL	Female	White	4
SL	Male	Black	1
SL	Male	White	3

Socioeconomic status (SES) categories are federal categories based on a family's total gross annual income.

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Personalized Professional Learning (PBL): Leveraging Teacher Inquiry to Inform Implementation of Proficiency-Based Learning

Mickey MacDonald

Name of School/Organization: P. K. Yonge Developmental Research School

State: Florida

Session Content Strand: Organizational Design

Session Outcomes: Participants will explore teacher inquiry as professional learning that informs and moves a school through the change process. Participants will develop a question of practice related to an aspect of PBL. Participants will experience a tuning protocol to scaffold development of an individual question of practice focused on student learning.

Session Description: Teacher leaders and administrators at P. K. Yonge Developmental Research School have been personalizing professional learning through teacher inquiry as they work to redesign their secondary school to fulfill a vision of proficiency-based learning. The session will begin with an opportunity for participants to share their experience with inquiry. Based on relevant experience, we will create working groups that strengthen the conversation throughout the remainder of the session. Participants will be guided through the teacher inquiry process as they develop their own question of practice related to an aspect of proficiency-based learning. Participants will have the opportunity to learn from P. K. Yonge's implementation journey, specifically focusing on the important role inquiry has played in developing teacher practice and supporting schoolwide change. Participants will leave the session with exemplars, knowledge of critical junctures in the research process, and protocols to facilitate a cycle of inquiry.

Session Components: Using the continuum protocol, participants sort based on experience with inquiry sharing experiences with a partner; participants build background knowledge using exemplars from critical junctures of inquiry process; participants develop a question of practice (QoP) with one participant receiving a fine-tuning of QoP through a fishbowl.