### **Promoting Equity Through Inquiry-based Instruction**

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#### Abstract:

In this brief advocacy article the author discusses common characteristics of strong, equitable systems of schooling from around the world. Citing contemporary research from the European Journal of Teacher Education, the Official Journal of the European Union, and the European Commission's report on Equity in School Education in Europe, he will explore findings from Europe, Asia, North America, and Australia, which despite very different historical and social contexts, tend to demonstrate common characteristics for equitable schooling. While each characteristic deserves its own presentation, this article will center around a characteristic arguably within the most direct influence of teachers and teacher educators: developing and supporting well-prepared teachers. The author advocates for preparing teachers to design and implement inquiry-based instruction; the pedagogical approach that research suggests develops the skills, knowledge, and habits of mind needed for an empowering educational experience. The article encourages teachers in each subject area to consider designing and implementing problem-based curriculum materials and classroom events to help all students develop their capacity to think critically and subsequently help students take control of their learning and their futures. The article concludes with a discussion of ways to meet challenges that teachers face when designing and implementing inquiry-based instruction.

Keywords: equity, inquiry-based instruction, professional development

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#### Introduction

Here, the author posits the notion that one meaningful way to promote equity<sup>1</sup> in schools is to develop and support teachers and teacher educators who can implement an empowering form of education (i.e., inquiry-based instruction) for all students. This article follows four steps as the author (1) describes the "characteristics of equitable systems of schooling" from around the world, (2) discusses one of those characteristics more carefully, (3) explores a wise-practice approach toward promoting that characteristic, and (4) addresses the challenges to promoting equity in this fashion.

### **Characteristics of Equitable Systems of Schooling**

Research suggests that strong, equitable systems of schooling from around the world—Europe (Finland), Asia (South Korea and Singapore), North America (Ontario, Canada), and Australia (Victoria and New South Wales), for example—tend to demonstrate common characteristics despite very different cultures and histories. The common "characteristics of equitable systems of schooling" are secure housing, food, and health care; fairly-funded and well-funded schools; school autonomy and school accountability; well-prepared teachers; and schools organized for opportunities to learn (see Darling-Hammond, 2010, 2017). These characteristics are drawn from the work of Linda Darling-Hammond, the founding president of the Learning Policy Institute, which was "created to provide high-quality research for policies that enable equitable and empowering education for each and every child" (https://ed.stanford.edu/faculty/ldh).

More recently, the European Commission issued a report called *Equity in School Education in Europe* (European Commission/EACEA/Eurydice, 2020). At the beginning of that report, the authors listed 12 "systemic factors" that tend to influence equity in schools. An image from that report is shown in Figure 1.

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<sup>&</sup>lt;sup>1</sup> There are many ways to operationalize "equitable" systems of schooling, including definitions that start from students' talents (a meritocratic view) and those that start from students' needs (an egalitarian view) (see Kyriakides et al., 2019). For the purposes of this article, the author conceptualizes equity along the egalitarian perspective: affording each student the resources and support they need to more fully develop their academic potential. This individualized approach works to reduce difference in students' academic outcomes that can be attributed to socio-economic factors, ethnicity, and gender (Charalambous et al., 2018).

**Figure 1**Systemic factors that influence equity in schools



One will notice some overlap between Darling-Hammond's findings and the European Commission's list (i.e., early childhood education and care, school autonomy, school accountability, opportunities to learn), and each of these characteristics or factors deserves its own thorough treatment. However, for the purposes of this brief article, the author concentrates on just one of the common characteristics and moves forward with an in-depth exploration, which will include a field-tested social studies example. The characteristic, well-prepared teachers (and, by extension, teacher educators), is explicit in Darling-Hammond's work and implicit in the European Commission's report.

#### One Characteristic

As it concerns equity, teachers and teacher educators find themselves with a type of middle ground of influence (Unterhalter, 2009) because, on one side, there are government ministries and local municipalities making policy decisions and regulations for equity (i.e., top-down efforts), and on the other side there are parents and students participating in and advocating for equity (i.e., bottom-up efforts). This positioning could lead one to argue that the characteristic of equitable systems of schooling over which teachers and teacher educators have the most direct

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influence is well-prepared teachers. In other words, the most foundational and important of all educational resources—well-prepared teachers—is also a key to equitable systems of schooling.

The following two quotes advance this argument and illustrate how well-prepared teachers can help promote equity. The first is from Darling-Hammond and the second is from the *Official Journal of the European Union*. Readers are invited to look for a word or phrase that stands out as worthy of further consideration. The quotes are:

A major aspect of the struggle for equity is "access to an empowering form of education—one that can enable people to think critically and powerfully, to take control of the course of their own learning and to determine their own fate—rather than merely to follow the dictates prescribed by others" (Darling-Hammond, 2010, p. 28).

The Official Journal of the European Union invites "MEMBER STATES, with due regard for subsidiarity and in accord to national circumstances, to focus on ensuring high-quality and inclusive education, and contributing to the development of the talent and potential of all learners... through project- and problem-based learning." (12.d. Council conclusions on school development and excellent teaching [2017/C 421/03])

For the author, the phrases that stand out are "empowering form of education" in the first quote and "problem-based learning" in the second quote. Together, they suggest that a way to meaningfully promote equity in schools is to develop and support teachers as they implement an "empowering form of education," as they plan, implement, and assess "problem-based learning" for every student. This approach is no panacea; rather, it is one method that can complement other methods that also promote equity.

This type of powerful instruction, however, stands in contrast to the typical pedagogical approach observed in many classrooms, where one tends to observe superficial coverage of large amounts of information and lower-level thinking skills (for a discussion of social studies classrooms, see Saye & SSIRC, 2013). This type of instruction does little to help students develop the skills, knowledge, and habits of mind that comprise an empowering educational experience. To develop the knowledge and skills needed to think critically and powerfully—to take control of their learning and determine their own fate—students need teachers in all subject areas to lead them in challenging and interesting explorations of content material.

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### A Century of Research

A pithy summary of the past 100 years of strong, consistent research findings from cognitive psychology and neuroscience research—from John Dewey, Maria Montessori, and Lev Vygotsky in the early 1900s to the Committee on How People Learn from 2018—is that information processing tends to activate when learners feel an authentic desire to know more. Sensemaking (i.e., learning) does not occur simply through the presentation of new data, regardless of how innovative and winsome delivery systems or incentive programs become; rather, "People learn when they seek answers to questions that matter to them" (Levstik & Barton, 2015, p. 13).

Those in the field of education sometimes use different terms to describe the pedagogical approach that features asking questions for learners to explore. Some of the terms are inquiry-based learning, problem-based learning, constructivist learning, discovery learning, inquisitive learning, and minimally guided instruction. Here, the author uses perhaps the most common term, inquiry-based instruction, and defines it with the following features (see National Council for the Social Studies, 2013; Onosko & Swenson, 1996):

- 1. Teachers posit an authentic question that resonates with students (i.e., Compelling Questions)
- 2. Students create knowledge and skills through disciplinary tools, procedures (i.e., Exploring Content)
- 3. Students collaborate, discuss and deliberate, experience scaffolded instruction, and make public presentations (i.e., Developing Arguments)
- 4. Students act according to well-informed conscience (i.e., Culminating Activities)

In all disciplines—the sciences, language and literature, mathematics, social studies, the arts, etc.—inquiry-based instruction tends to be most effective when it is systematic and intentional, guided by the rules of each discipline and appropriate to each field (see Saye, 2017, for a thorough discussion of disciplined-inquiry in social studies classrooms). So, while this empowering form of instruction would follow a similar pattern, it would look different in each classroom. For example, students in a biology class, students in a geometry class, and students in a literature class could be observed answering questions, collaborating, having closely-scaffolded experiences, and participating in meaningful discourse and presenting arguments as potential solutions; however, the particular tools and procedures they use to develop content knowledge and build disciplinary skills would look very different.

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### **Empowering Form of Instruction**

Next, the author would like to explore what this type of empowering form of education could look like in a real-world classroom facilitated by a well-prepared teacher.

Initially as a teacher and now as a teacher educator, the author is an active member of a national community called the Persistent Issues in History Network (Saye & Brush, 2005). The Persistent Issues in History (hereafter: PIH) Network is founded on the belief that pre-collegiate history must help students develop "civic competence: the ability to make informed and reasoned decisions for the public good as citizens of a culturally diverse, democratic society" (Saye & Brush, 2004, p.124). Accordingly, the PIH Network "seeks to nurture and support a national community of teachers who engage their students in problem-based historical study that promotes competent citizenship," which, for example, includes "inquiry into historical instances of fundamental societal questions" (Saye & Brush, 2005, p.168).

One of the many educative features of the PIH Network is a videocase library that demonstrates empowering inquiry-based units and lessons implemented in real-world classrooms. There are also short videos of PIH Network partner teachers reflecting on their experiences teaching students; they discuss the benefits of implementing problem-based historical instruction and their efforts to overcome its challenges. All necessary curriculum materials for powerful teaching-and-learning are also included with the videocases. What follows is a description of an especially dynamic inquiry-based lesson, one that demonstrates how an empowering form of education can promote equity in schools. The lesson described below is copyrighted by the PIH Network and was developed in collaboration with a PIH Network partner teacher, Mac Matthews.

#### The Berlin Crisis.

This lesson was intended for a modern World History classroom in a middle school, for students around 13 or 14 years of age, and where the class met for 90 minutes each day for one semester. The students were studying the very early years of the Cold War, focusing in this lesson on the post-war division and reunification of Germany into West Germany and East Germany, Berlin into West Berlin and East Berlin, and, moreover, the tension in 1948 because Western-influenced West Berlin was geographically within Soviet-influenced East Germany.

The teacher centered the lesson around this *compelling question*: What course of action should U.S. President Harry Truman take in the 1948 Berlin Crisis?

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To answer that question well, students created knowledge and developed skills by *exploring* four different historically accurate perspectives that existed at the time, weighed conflicting information, and thought critically. After learning details of the situation through an engaging activity in which President Truman was "thinking aloud" about the Berlin Crisis, students collaborated in expert groups where they read and understood one of four assigned perspectives. They made sense of arguments suggesting that the president should (1) take an aggressive, bold stance, (2) allow diplomacy to work, albeit slowly, (3) demonstrate industrial strength and clear support for West Berlin, or (4) seek peace, even if it means allowing a Soviet sphere of influence in Eastern Europe. The above descriptions are heavily truncated for the purpose of providing brief context. This step asked students to socially construct knowledge in collaborative tasks, examine a perspective situated in an authentic real-world problem, and deliberate facts, definitions, and values. The teacher also explicitly structured the activity to support critical thinking; he designed materials in advance to anticipate learners' typical difficulties and he was prepared to spontaneously support learners by providing just-in-time help.

Students then moved into decision-making groups where they shared and explored all four perspectives and collaborated to *develop one argument to answer to the compelling question*. This step included collaborative discourse, deliberation, and critical reasoning, the negotiation of multiple truth claims, and asked students to develop larger webs of meaning. The activity included rich, complex tasks that appealed to multiple ways of knowing and communicating.

After each group made an informal presentation of their recommendation for the president, students completed a *culminating activity*. They were released from any assigned perspective and asked to answer the compelling question from their newly informed personal perspective by writing a speech or drawing and annotating an editorial cartoon. Both assignments asked students to use historical evidence and rational thinking to support and defend a claim about the compelling question.

This lesson was a demonstration, in a real-world classroom, of the type of empowering form of education that can help promote equity. Students engaged in this type of instruction are very likely to develop 21<sup>st</sup>-century skills, knowledge, and habits of mind to help them take control of their learning and decision-making, and, as Darling-Hammond (2010) wrote, "determine their own fate, rather than merely to follow the dictates prescribed by others" (p. 28).

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### Challenges

The type of classroom instruction shared here is not easy. In truth, it is very difficult. The author ends this article by addressing some of the challenges to inquiry-based instruction. The challenges are as follows:

- time, energy, and cognitive demands (Saye, 2017)
- beliefs about knowledge and learning (Colburn, 2000)
- inexperience with inquiry (Monte-Sano et al., 2014)
- comfort level with the ambiguity of inquiry-based contexts (Saye, 2017)
- capacity for leading substantive discourse (Hess, 2008; Journell, 2011)
- large class sizes, expectations for coverage, and high-stakes testing (Grant & Gradwell, 2010)

Some of these challenges (i.e., high-stakes testing) are unlikely to disappear anytime soon. However, the effects of others (i.e., teachers' inexperience with inquiry) can be addressed. The author suggests practicing the necessary skills—planning, implementing, and assessing inquiry-based instruction—and receiving substantive feedback upon that practice, and then practicing them again many times. This iterative process is a logical step.

Also, the author suggests reading what researchers and practitioners in the field have found and what implications they have drawn from scientific investigations into inquiry-based classrooms. Reading to understand both the "how" and the "why" can better prepare teachers to implement empowering forms of instruction.

Another suggestion is collaboration. The author considers it a wise practice to work with colleagues to share the difficulty and think deeply together. This type of collective rationality can occur through many approaches; however, the author is particularly fond of Lesson Study (Callahan, 2018; Kohlmeier et al., 2020) and collaborative efforts that attempt to build Professional Teaching Knowledge (Callahan, 2019; Hiebert et al., 2002; Howell & Saye, 2015).

#### Conclusion

There are many ways, of course, that teachers and teacher educators can promote equity in schools; however, one can argue, as the author has throughout this brief article, that a viable

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path toward promoting equity is to help develop and support well-prepared teachers who can implement an "empowering form of education" (i.e., inquiry-based instruction) for every student.

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