Supervision’s New Challenge: Facilitating a Multidimensional Curriculum

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Supervision’s New Challenge: Facilitating a Multidimensional Curriculum

Stephen P. Gordon

Abstract

In this article I propose that curriculum and instruction are inextricably intertwined, curriculum development should be an important function of educational supervision, and supervision should foster a multidimensional curriculum developed by teachers. The proposed curriculum framework includes cognitive, social-emotional, moral, cultural, democratic, creative-artistic, and health and physical dimensions. I provide a rationale for including each of the seven dimensions, and recommend integrating the seven dimensions within a holistic curriculum. I contend that each dimension of the proposed curriculum will promote learning in the other dimensions. The suggested curriculum development process involves the supervisor facilitating professional development for teachers and curriculum design by teachers. Finally, I recommend a three-phase model for curriculum development leading to the multidimensional curriculum, with continuous curriculum development at the school, team, and individual level.

Keywords

supervision, curriculum, curriculum development, multidimensional curriculum, holistic curriculum

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Introduction

Nationally, school curriculum is driven by state-mandated standards, often enforced by high-stakes tests focused on lower-level cognitive skills. In many school districts, the test objectives themselves have become the curriculum objectives. Such narrow curriculum is driven by state policy makers, but often is supported by parents concerned about their children’s chances for college admission or jobs and by local news media reports focused on composite test scores as the sole measure of school progress (Etzioni, 2011). In this article, I argue that supervisors need to work with teachers to develop new curriculum that is multidimensional and that promotes higher-level, holistic learning. I present my arguments by asking and answering four questions:

1. Why Should Curriculum Development Be an Important Function of Educational Supervision?
2. What Type of Curriculum Should Supervisors Assist Teachers in Developing?
3. How Can a Multidimensional Curriculum Be Developed?
4. How Could Teachers Implement a Multidimensional Curriculum?

Although curriculum development and instruction are not the same thing, they are inextricably intertwined. What is taught, whom it is taught to, and when it is taught (curriculum) all have direct effects on how it is taught (instruction). Indeed, successful teaching—and supervisory efforts to help the teacher succeed—are intimately related to the nature of the curriculum being taught (Glickman, Gordon, & Ross-Gordon, 2018). Figure 1 illustrates the relationship of educational supervision, curriculum, and instruction.

Figure 1: The Relationship between Educational Supervision, Curriculum, and Instruction
Curriculum development (like instruction) involves moral decisions about student learning. Byrd (2012) states, “The rationale behind every mandated curriculum standard has moral implications” (p. 1034). Etzioni (2011) argues, “The role of values in decision making is most obvious in formulating the curriculum” (p. 28). Those who work most closely with students—teachers, assisted by supervisors—should participate in the moral decision making involved in curriculum development and implementation.

Beyond the moral imperative for teachers to be involved in curriculum decisions and for supervisors to assist teachers in those decisions, curriculum development offers teachers opportunities for reflection, dialogue, and collaboration, all of which are associated with improved teaching and learning (Glickman et al., 2018). Since the accountability movement reached full force, however, few teachers have been involved in meaningful curriculum development. The state’s high-stakes achievement test either enforces a state curriculum or becomes the curriculum. Students’ academic survival, teachers’ job survival, and the survival of the school itself depend on acceptable test scores. Although regrettable, it is understandable why many supervisors and teachers have allowed the test to become their ‘curriculum guide’ and turned to direct instruction on test objectives. Eisner (2015) argues that educators need to move away from what has become the status quo “toward the processes, conditions, and culture that are closer to the heart of education” (p. 28). Eisner contends, “We need a fresh and humane vision of what schools might become because what our schools become has everything to do with what are children and our culture will become” (p. 29). The concept of a multidimensional curriculum offers a new vision for the teachers who would develop and teach that curriculum and for the students who would receive the holistic education made possible by that curriculum. A multidimensional curriculum, however, will only be possible if supervisors provide the encouragement, structures, processes, and resources that will assist teachers to develop such a curriculum.

**A Framework for Supervision to Support a Multidimensional Curriculum**

I propose seven critical dimensions of a holistic curriculum: cognitive, social-emotional, moral, cultural, democratic, creative-artistic, and health and physical dimensions. A holistic curriculum is focused on preparing students for critical thinking and problem solving, emotional well-being, and positive relationships with others. Students educated holistically will care for others, be culturally responsive, critique injustice, and work for justice and equity in their community and the larger society. A holistic education includes developing an understanding of and commitment to democracy, a requirement for our citizens if we are to remain a democratic nation. Creativity is part of successful lives, organizations, and communities and throughout history artistic expression has been associated with advanced societies, and a holistic curriculum will include the creative-artistic dimension. Finally, a happy and fulfilling life – and the ability to contribute to the well-being of others – is in large part dependent on one’s physical health, thus health and physical education is also part of a holistic curriculum. It is important that we understand these dimensions not as different areas of the curriculum to be addressed separately, but as interrelated, interactive, and complimentary.

Figure 2 displays the interrelationship of the seven dimensions. In this section I provide a description of each of these dimensions as well as rationales for including them in the school
curriculum. As such, they provide the foundation for the argument of why supervision is crucial in helping create and maintain a multidimensional curriculum.

**Figure 2: Multidimensional Curriculum Framework**

![Multidimensional Curriculum Framework](image)

**Cognitive Dimension**

One problem with state standards is that they tend to focus on the lower levels of Bloom’s cognitive taxonomy, often in laundry-list format. The key to higher-level cognitive learning is not to eliminate knowledge and comprehension but to build on them to reach the higher levels of Bloom’s taxonomy. Scriven and Paul provide a good example of higher-level cognition in their definition of critical thinking as “the intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action” (cited in Xu, 2011, p. 136).

Higher-level cognitive learning can be incorporated into any of the traditional subject areas – language arts, math, science, social studies – as well as technology. The fact that recent surveys of employers indicate they seek employees with critical thinking, problem solving, and communication skills supports the development of curriculum that envelops “basic skills” within higher-level cognitive skills (Kivunja, 2014, National Association of Colleges and Employers, 2016). Thus, it is the application of basic skills in creative and complex ways that is important for teachers to consider when engaging their students cognitively.
Social-Emotional Dimension

Social-emotional learning (SEL) includes intrapersonal and interpersonal skills. Different proponents list different specific skills within this dimension. Malti and Noam (2016), for example, propose seven “dimensions” of SEL, including an action orientation, emotion control, assertiveness, sympathy, trust, optimism, and self-regulation (p. 660). McKown (2017) describes three broad categories of SEL: thinking (including emotion recognition, perspective taking, and social problem-solving skills), behaviors (social skills leading to positive interactions and relationships), and self-control (delayed gratification, frustration tolerance, and impulse control) (pp. 161-166). The best-known classification of SEL goals comes from the Collaborative for Academic, Social, and Emotional Learning (CASEL, 2003) that proposes five social and emotional competencies: self-awareness, social awareness, self-management, relationship skills, and responsible decision making (p. 5).

The acronym SAFE represents effective support of SEL, which includes appropriately sequenced activities providing active learning focused on specific learning goals and explicit SEL skills (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011). Successful SEL involves a person-centered and an environmental focus (Zins, Bloodworth, Weissberg, & Walberg, 2007). The variety of approaches to facilitating SEL described by Dusenbury and Weissberg (2017) all are consistent with a broad view of curriculum. These approaches include individual lessons on SEL, incorporating instructional practices that support SEL (e.g., cooperative learning), integration of SEL across academic subjects, and schoolwide initiatives that promote SEL (e.g., supportive discipline programs, school environments, informal curricula, school-family partnerships, and school-community partnerships).

Moral Dimension

Kohlberg’s highest stages of moral reasoning, based on studies of men, are concerned with justice (Kohlberg & Hersch, 1977), while Gilligan’s (1977) highest levels of moral development, based on studies of women, are focused on care. Skoe (2014) concludes that both men and women of high moral development value justice and care, with women placing a somewhat higher value on care, and Elliott (1991) concludes that justice and care are “complementary visions of the same landscape” (pp. 22-23). Glickman et al. (2018) place morality in a community context and describe nine principles shared by a moral community: care, wholeness, connectedness, inclusion, justice, peace, freedom, trust, and empowerment.

Kohlberg and Hersch (1977) note that moral education in school has been “disregarded or misunderstood” (p. 53) because it has been considered the province of the home and church. The absence of a moral dimension in the curriculum has been associated with negative behaviors, both for students and adults. For students, lower levels of moral development are related to higher levels of aggression (Sengsavang & Krettenauer, 2015) and juvenile delinquency (Chudzik, 2007). For adults, low moral developmental levels are related to domestic abuse (Buttell, 2003), inappropriate behaviors in the workplace (Hastings & Finegan, 2014), opportunism on the part of corporate leaders and politicians (Besio & Pronzini, 2014), and insensitivity on social issues such as climate change (Severson & Coleman, 2015).
Kohlberg and Hersch (1977) argue, “Given that people have the psychological capacity to progress to higher (and therefore more adequate) stages of moral reasoning, the aim of education ought to be the personal development of students toward more complex ways of reasoning” (p. 55). Byrd (2012) writes, “There is a substantial need for innovative approaches that move beyond the traditional frameworks and encourage the development of moral dispositions and personal conscience” (p. 1074). Adding a moral dimension to the curriculum might include integrating ideas drawn from the justice and care perspectives as well as more general perspectives on moral development. For example, the curriculum could include moral dilemmas involving issues of justice as well as the modeling, dialogue, practice, and confirmation for developing caring students recommended by Noddings (2005). More generally, curriculum development could include analyzing the current curriculum to identify moral issues within a local community that directly impact students and family members and developing learning activities and materials intended to address those issues.

Cultural Dimension

The cultural dimension includes the cultures of different races, ethnicities, socioeconomic groups, genders, sexual orientations, and religions, as well as persons with disabilities. The cultural dimension of the curriculum is intended to enable students a) to understand their own culture and cultural identity, b) to understand and respond positively to other cultures, c) prepare students from historically marginalized cultures to navigate the dominant culture, and d) to work for equity and social justice in the present and future. As such, the cultural dimension of the curriculum should help prepare students to treat others with respect and dignity as well as to function in our global society where civil rights are identified and upheld (Byrd, 2012).

Beyond human rights and equity, there is a need for cultural competence to be taught in American schools so that students can function in a global society. Cant (2004) concludes, “American students are often ill prepared for the realities of the global economy and...are naive about the cultural complexities of global business” (p.178). Even within the American corporate culture, employers now seek employees who can work successfully in diverse teams (Kivunja, 2015). The inclusion of a culturally responsive curriculum with content that represents diverse cultures, recognizes the cultural values of these groups, and aligns with and harnesses the assets of different cultural groups is critical for teachers and supervisors to consider. The cultural dimension is also intended to foster positive relationships among members of different cultural groups and should be designed to transform beliefs and inspire action for equity and social justice within and beyond the school.

Democratic Dimension

In the U.S., political participation is generally low, and especially low among millennials (Pew Research Center, 2012). One of the primary reasons for the founding of public schools in the U.S. was to prepare citizens to participate in a democratic society. Given both the lack of attention to democracy in our public-school curriculum as well as the authoritarian environment of conventional schools, the lack of adult participation in the nation’s political systems and low level of civic engagement in general should not be surprising.
To be contributing members of a democratic society, students need to learn “how to engage in a deliberate process that results in a consensus within a pluralistic society” (Byrd, 2012, p. 1025). Quintelier and Hooghe (2013) found a positive relationship between student-perceived democratic school climate and student intent to participate in the political process. Additionally, interactive and participatory schools are positively related to democratic student attitudes (Flanagan, Cumsille, Gill, & Gallay, 2007; Gniewosz, Noack, & Buhl, 2009). Students do not learn democratic dispositions by being provided information on democracy—rather they must experience democracy and social interchange to develop democratic attitudes and skills. Democratic schools experience better communication, fewer behavior problems, increased student motivation (Schimmel, 2003), and higher levels of student achievement (Glickman et al., 2018) than schools that are not democratic. Glickman (1998) lists the types of activities included in a democratic curriculum, referenced in Table 1.

Table 1. Glickman’s Activities in Democratic Curriculum

<table>
<thead>
<tr>
<th>Students:</th>
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<tbody>
<tr>
<td>1. Work actively with problems, ideas, materials, and other people as they learn skills and content</td>
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<tr>
<td>2. Have escalating degrees of choice, both as individuals and groups, within the parameters provided by the teacher</td>
</tr>
<tr>
<td>3. Are responsible to their peers, teachers, parents, and school community, using educational time purposefully, intelligently, and productively</td>
</tr>
<tr>
<td>4. Share their learning with one another, teachers, parents, and other community members</td>
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<tr>
<td>5. Decide how to make their learning a contribution to their community</td>
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<tr>
<td>6. Assume escalating responsibilities for securing resources (of people and materials outside of school) and finding places where they can apply and further their learning</td>
</tr>
<tr>
<td>7. Demonstrate what they know and can do in public settings and receive public feedback</td>
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<tr>
<td>8. Work together and learn from another, individually and in groups, at a pace that challenges all</td>
</tr>
</tbody>
</table>

Creative-Artistic Dimension

In our current educational system, creativity has been pushed aside as teachers and supervisors focus on the “basic” knowledge and skills listed in state standards and measured on high-stakes tests (Berliner, 2009; Olivant, 2015). The arts have met a similar fate, in the U.S. as well as other industrialized nations, as “art (fine art, music, dance and drama) is pushed to the edge of formal education” (Breznovik, 2015, p. 16). In short, it is not seen as valued as math, language arts, social studies, or science.

An extensive line of research on the effects of creativity belies the current state of affairs, with high levels of creativity shown to be a better predictor of personal achievement in adulthood than IQ or academic achievement in high school (Runco, Miller, Acar, & Cramond, 2010). Employers report that creativity is one of the attributes they look for in job applicants (Kivunja, 2014; National Association of Colleges and Employers, 2016). Regarding the arts, in a study of 2000 students in grades 4-8, researchers found that students who attended schools providing a high-arts curriculum had significantly greater levels of creativity, perceived competence in academics, problem-solving ability, self-expression, self-confidence, and collaborative skills than students who attended a school with a low-arts curriculum (Burton, Horowitz, & Abeles, 1999).

In addition to connecting learning to various forms of art (applied, fine, visual, performance) there is a variety of other learning activities that can be included in the curriculum for the purpose of developing student creativity. A few of these include brainstorming, divergent thinking exercises, guided imagery, creative problem solving, inquiry learning, project-based learning, experiential learning, creative writing, and self-directed learning. One key to developing more creative graduates is to expand many of these learning activities from the gifted and talented curriculum to the general curriculum.

Health and Physical Dimension

In a study of 971 students in grades 1 through 5, Scott (2013) found that 17% were overweight, 23% were obese, 27% had acanthosis nigricans (an indicator of increased risk for diabetes), and 40% were eligible for further screening for diabetes. Thousands of youth in the U.S. are diagnosed with type 2 diabetes annually, and millions of youth have pre-diabetes (Scott, 2013). In addition to type 2 diabetes, overweight and obese students are at greater risk for cardiovascular disease and social emotional problems (Li, Li, Zhao, & Li, 2017).

On the positive side, adopting a healthy lifestyle and regular physical exercise can not only improve student health but also increase self-confidence and self-esteem. With the increased emphasis on the high-stakes achievement test, however, health and physical education have been eliminated or reduced in many schools in order to devote more time to test preparation. This is unfortunate considering research showing that physical activity improves children’s cognitive functioning and academic achievement (Erickson, Hillman, & Kramer, 2015).

A convincing argument can be made for making health and physical education a full dimension of the curriculum, but an equally strong argument can be made for not returning to the physical
education class of the past, focused on a narrow range of competitive exercises and sports. If health and physical education are going to be inclusive, they must provide a positive learning environment for all students. Li et al. (2017), provide some basic tenets of such an environment in Table 2.

**Table 1. Li and Associates’ (2017) Basic Tenets of Creative Approaches to Health and Physical Education**

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<table>
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<tbody>
<tr>
<td>1</td>
<td>Provide alternative activities and student choice</td>
</tr>
<tr>
<td>2</td>
<td>Afford opportunities for all students to be successful</td>
</tr>
<tr>
<td>3</td>
<td>Focus on personal growth rather than comparison</td>
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<tr>
<td>4</td>
<td>Design cooperative rather than competitive learning activities</td>
</tr>
<tr>
<td>5</td>
<td>Allow students to demonstrate their areas of expertise</td>
</tr>
<tr>
<td>6</td>
<td>Foster lifetime skills</td>
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Wearable devices have entered the world of K-12 health and physical education. Lee, Drake, and Williamson (2015), for example, describe a number of activities in which students combine fitness activities with analysis of data from wearable trackers, including high school students using heart rate monitors to compare their heart rates while engaged in different types of exercise, and elementary students using activity trackers to record how active they are at recess. Another creative approach, *initiative games*, is described by Maina, Maina, and Hunt (2016a,b) as combining physical education and critical thinking skills. These games are built around “predetermined problems for which a group must find a solution by employing cooperation, physical effort, and cognitive functioning” (Maina et al., 2016a, p. 29). Teams of five to seven students are provided a scenario, rules and conditions, equipment, an organizational layout, and safety considerations, and are charged with identifying the problem, considering alternative solutions, creating a plan, executing the plan, evaluating results, and explaining their actions (Maina et al., 2016b). As such, there is an intersection between cognitive engagement and the health and physical dimension.


Discussion and Implications for Practice

Those concerned about “watering down” the curriculum by attending to all seven dimensions proposed here can be comforted by the interactive and synergistic nature of the seven dimensions. For example, one meta-analysis of 213 SEL programs serving 270,034 students aged 5 through 13 found that students gained 11 percentile points in academic achievement (Durlak et al., 2011). In a review of SEL programs by CASEL, 83% of SEL programs in which SEL was integrated with academic learning resulted in academic gains (CASEL, 2003; Zins, et al., 2007). And Dix et al. (2012) found up to a six-month difference in academic performance between schools with high and low SEL implementation. Dyer (2014) recounts how a group of dance educators used collaborative inquiry to develop a secondary dance curriculum that included the development of critical judgment, capacity for moral reasoning and caring, and democratic values. Yap (2014) describes integrating ethics and morality into the science curriculum.

In an article on African dance aesthetics, Ward (2013) proposes that, in addition to health and fitness, African dance can be incorporated into the teaching of sociology, political science, history, geography, creativity, diverse thinking skills, and social justice. Regarding the latter, Ward (2013) explains, “meaningful culturally engaging experiences through African dance aesthetics have the power to empower and transform individuals to question and act on inequalities and social injustices and encourage the world to associate with their African heritage because it permeates globally” (p. 34).

Synergy also addresses the concerns of those that believe students should be allowed to focus on areas of the curriculum that interest them and in which they will excel. If the seven dimensions are truly interrelated parts of a larger whole, then any of the dimensions can be viewed as an entry point to that larger whole. Students who initially show more interest in one dimension, if given the freedom and encouragement to do so, will begin to discover connections between the favored dimension and others. Learning in one dimension will, in a curriculum that connects the seven dimensions, lead to learning in the others. Also, each dimension of a holistic curriculum can include a variety of different approaches to learning allowing for both differentiation and student choice; there are myriad types of physical activities that will contribute to health and fitness, numerous approaches to exploring science, a multitude of activities that can develop student creativity, and so forth.

The synergy of all seven dimensions needs to be the result of a curriculum that intentionally integrates the seven dimensions. Part of successful integration has to do with how we conceptualize various areas of study. For instance, Davies, Cox, and Edmondson (2007) define technology as “learning in and about the way we humans address societal problems and find solutions through developing some ‘intervention’ in the world” (para. 4). This broad conception of technology opens the door to integrating technology across all seven dimensions. Broadening our view of different types of curriculum content helps us to see the interrelationships among those content areas.
How Can a Multidimensional Curriculum Be Developed?

Developing a multidimensional curriculum involves teachers in professional development and curriculum design assisted by the supervisor. Teachers need professional development in each of the seven dimensions and in the process of curriculum development. The latter can take place on a just-in-time basis, as the teachers and supervisor move through the various stages of the curriculum development process.

The first phase of curriculum development involves establishing broad goals within each of the seven dimensions. Part of this phase requires enveloping external curriculum mandates into the broad goals. Most external mandates tend to be in the cognitive domain, but some can be incorporated into one of the other six dimensions. Since the broad goals, including the cognitive goals, will be transdisciplinary, it is essential that interdisciplinary teams representing all disciplines and grade levels be involved in the goal setting.

Providing that existing grade-level subjects or course topics will remain the same, the second phase of curriculum development includes establishing new unit topics for each grade-level subject or course, with each unit topic related to at least one broad goal from within each of the seven dimensions. Each unit topic thus encompasses all seven dimensions. This phase also includes sequencing unit topics within and across grade-level subjects or courses. Even though in this phase separate grade-level subjects or individual courses are being revised, it is important that the interdisciplinary teams continue to work together, to ensure that all broad goals are being addressed in a progressive and appropriately sequenced manner from grade to grade or course to course.

The third phase of curriculum development consists of teachers designing seven-dimensional curriculum units for each grade-level subject or course. The unit design begins with writing at least one learning objective for each broad goal subsumed within the unit topic (and thus for each dimension). Next, the teachers design alternative learning activities for the unit. Most learning activities will address multiple learning objectives and multiple dimensions, and all objectives will be addressed by one or more learning activities. Thus, different dimensions and related objectives will be integrated at the unit level. The alternative learning activities should be authentic, including “construction of knowledge, disciplined inquiry, and value beyond school” (Newmann, Marks, & Gamoran, 1996, p. 282). Finally, teachers design alternative assessments related to unit objectives. These assessments also are authentic, replicating or simulating real-world challenges and determining whether the student can transfer learning to meet those challenges (Wiggins, 2011). The alternative learning and assessment activities in each unit are intended for teachers to choose from, revise, combine, or expand upon.

Conclusion

The key to successful implementation of a multidimensional curriculum is continuous curriculum development at the school, team, and individual level, consistent with the broad goals within each dimension. This continuous development includes selection and modification of learning and assessment activities found in the curriculum guide as well as creation of new activities intended to match the cultures, previous development, learning styles, and emerging
needs of students. Teachers can periodically engage in curriculum mapping to compare the written curriculum to the curriculum-in-use, and remapping to improve the curriculum. Curriculum implementation should be accompanied by continuous reflection by individual teachers and ongoing reflective dialogue among teachers and supervisors about how to improve teaching and learning.

Of course, facilitating teacher development of a written curriculum that addresses all seven of the dimensions discussed in this paper by itself will be insufficient. Teachers will need professional development in teaching methods consistent with a multi-dimensional curriculum; direct assistance in the form of mentoring, clinical supervision, or peer coaching; and ongoing collegial support provided through such structures as professional learning communities and critical friends groups. Instructional assistance remains critical, but to reiterate the theme of this article, only attending to the instructional side of curriculum and instruction also is insufficient. Teachers and students will be shortchanged until supervision attends to all aspects of teaching and learning, including the curriculum.
References


**Author Biography**

**Stephen P. Gordon** is a professor of educational and community leadership at Texas State University. His teaching and research interests include educational supervision, professional development, action research, school improvement, and curriculum development. Dr. Gordon’s most recent text is *Supervision and Instructional Leadership: A Developmental Approach* (2018), coauthored with Carl Glickman and Jovita Ross-Gordon.