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Introduction to the NISL Wheel

The NISL “wheel” is intended to serve as a guide for school leaders to the way in which NISL views the school leader’s challenge. Taken as a whole, it draws a picture of the kind of school we hope Executive Development Program alumni will create.

There is nothing arbitrary about the wheel. All the elements are based on decades of research by the National Center on Education and the Economy (NCEE) and many others, in the United States and elsewhere. It draws particularly heavily on what we have learned about effective schools in those countries in which student performance is highest and in which there is the most equity of results among schools and students. When your school looks like this, it will be among the highest performing schools in the world.

In the center is a single objective: getting all students to the point at which they are genuinely ready to be successful in college, if they choose to attend, and in the careers they choose for themselves. A majority of high school graduates in the United States do not yet meet this standard.

Some will object that we did not do as many others do: put “the student” in the center of the wheel. But the student is at the center of the wheel, not as a vague abstraction but with a goal: enabling the student to be successful and to be a contributor. We might have said, as so many do, that the aim is to help every student develop to his or her full potential. But that is a dangerous statement in a country in which so many believe that students have very different potentials, some great and some meager. What we put in the middle of this wheel is not a vague aspiration, but rather something measurable, something we can hold ourselves accountable for. What we put around the center is everything that must

be done to achieve that goal. Some would have said that what we should have put in the center of the wheel is student learning. We are deeply sympathetic to that point of view. The criterion for setting every priority in the school is whether what is being proposed will contribute to student learning and the degree to which it will do just that. You might be surprised to find how many decisions we make every day are based on very different criteria. The goal we set cannot be accomplished without a laser focus on student learning.

The wheel does not reflect everything that is known about how the top-performing countries educate their students. Some of what those countries do is done at the level of the district, state, province, and nation. They are beyond the reach of school leaders. We did not put those things in our wheel. What is in the wheel are things that school leaders should in most cases be able to affect, if not control.

The wheel is about what should be. It says nothing about how to get those things to happen. That, of course, is the job of the school leader—to make it happen. To do that, the principal must have a vision, be able to enlist others in that vision, add to the ranks of her adherents and reduce the number of detractors, make sure the focus is always on student learning and nothing else, lead change when change is needed and hold steady when steadiness is needed, provide the support that teachers need, and empower both them and the students, the first as professionals, the latter as the drivers of their own educational progress. Next to developing a compelling vision and providing moral leadership, the most important responsibility of the principal is the development of strategies that can make the vision come to life every day in the school. One of the hallmarks of the NISL Executive Development Program is its emphasis on strategy. Strategy is how you get things to

happen. Much of the NISL program is designed to help you develop the strategies you will need to implement your vision and to create schools with the characteristics described in the wheel.

You will find that the Executive Development Program puts a lot of emphasis on the school leader as school designer. That is to say, the school leader is the designer of the environments in which teachers teach and in which students learn. It is the features of that environment that make schools attractive places to work or places everyone wants to escape, places in which everyone is striving to get better at what they do or places in which people will do just enough to get by, places in which people feel respected and energized or places in which they feel that the place is run by others for their benefit, not yours. Get the environment right and much of the rest will take care of itself.

The wheel is nested. The aim of the whole enterprise is in the center. In the next circle is the heart of the matter, the three keys to success. The first is the creation of a very high-quality instructional system. You can think about this as “what is taught.” The second is high-quality teachers and teaching. You can think about this as “how it is taught.” The third and last is high-performance organization and management. The current form of American schooling was set a century ago in an age in which it made sense to treat teachers as blue-collar workers were then treated. Those days are long since passed.

High-performance organization and management is shorthand for an approach to school organization and management that is appropriate for teachers who are treated as high status professionals, like doctors, attorneys, engineers, and architects. These are all things over which school leaders have a lot of influence and in many cases direct control. And they are the heart of the matter. They are, in the end, what schooling is about.

The next circle, labeled “Enablers: Resource equity/performance and Information management system,” addresses other important things that school leaders need to focus on that, while not quite as important as the three just mentioned, are nonetheless very important and, at least to a degree, within the purview of the school leader.

The next circle has to do with school ethos and school culture, two things that are hard to get your arms around but are nonetheless critical to the outcome. They affect everything else in the wheel. No school leader can ignore school ethos and school culture very long and succeed.

The outer circle addresses factors that are not within the control of the school, but are nonetheless critical factors influencing the outcomes for students. Though they cannot control these things, school leaders can often greatly influence them and need to work hard to do so.

This is not the first NISL wheel. The first such wheel was far simpler. Those of you who worked with it will quickly find that everything that was in that wheel is in this one. So it is fair to say that this wheel does not so much replace the earlier one as build on it.

If you have access to the digital version of this wheel, tap on any section of the wheel and it will lead you one step further, to a slightly expanded statement. But this is not the end. The wheel has been designed as a portal to a far larger digital library containing documents of all kinds that can go far beyond the short paragraph that appears when you tap on the top level of the wheel. NISL has devised the wheel as a way to organize a journey and to give you access to information, analysis, and tools of all kinds that can help you conduct an almost limitless exploration on the topics covered by this wheel.

Construction of this dynamic library is only now beginning and it will never end.

One last point. This wheel is a framework, not a specification. The elements of this framework have been tested and found to work in the countries with the most effective education systems worldwide. They are a set of principles, not an engineering drawing.

Those principles can be followed in many different ways. They should serve as an inspiration, not a straitjacket. Bear in mind,

too, that global best practice is a moving target. The best-performing countries put a lot more effort into looking over their shoulders at what top performers are doing than the United States does. But they do not limit themselves to what other countries are doing. If they did, they would always be followers, not leaders. They are constantly evolving their systems to meet changing challenges and to get better results. While we need to build on the best, we cannot be content with building on the best. We, too, need to reach for more.

College and Career Ready Students

We want, *at a minimum*, to be sure that high school graduates are ready to succeed in the 2-year and 4-year college programs that will prepare them for both work and further education.

But that is not all we want. We want students whose mastery of the subjects they have studied runs deep—they have the kind of deep understanding of those subjects that will enable them to learn other things easily when they need to and to apply what they have learned creatively and effectively to a wide range of problems and challenges. We want them to be able to synthesize what they have learned from many domains as they address those challenges and to analyze the challenges they face so that they can address them. They will have to be very good communicators, in many mediums. They will need to be both disciplined and creative at the same time.

But we want far more than that for our students. They need to learn how to lead and how to be a

good team member. We want them to set high standards for themselves and to be prepared to work hard to achieve them. Their character matters a lot to us. We want them to know right from wrong and to do the right thing when it is not easy to do. We want them to take pleasure from serving others and being a contributing member of society. We want them to be tolerant and inclusive. We want them to be tough and kind.

To be effective in anything they undertake, our students will have to be able to control their emotions, set high targets for themselves, and be prepared to sacrifice for their long-term goals to achieve them. They have to be able to monitor their behavior and change it when necessary. They will need to be able to set a goal, develop a plan, and work toward it.

The Singaporeans have a slogan that sums up some of this as Heart, Head, and Hand. It is a good reminder that school is about a lot more than classwork; it is all about the student and all the kinds of learning that need to take place to develop the graduates of whom we will be proud.



High-Quality Aligned Instructional Systems

High Standards for All Students

Aligned instructional systems should include internationally benchmarked student performance standards, which require *all students*, not just the elite students, to

- understand the conceptual basis of the subject;
- conduct complex analyses;
- synthesize material from disparate sources; and
- apply what they are learning to real world problems.

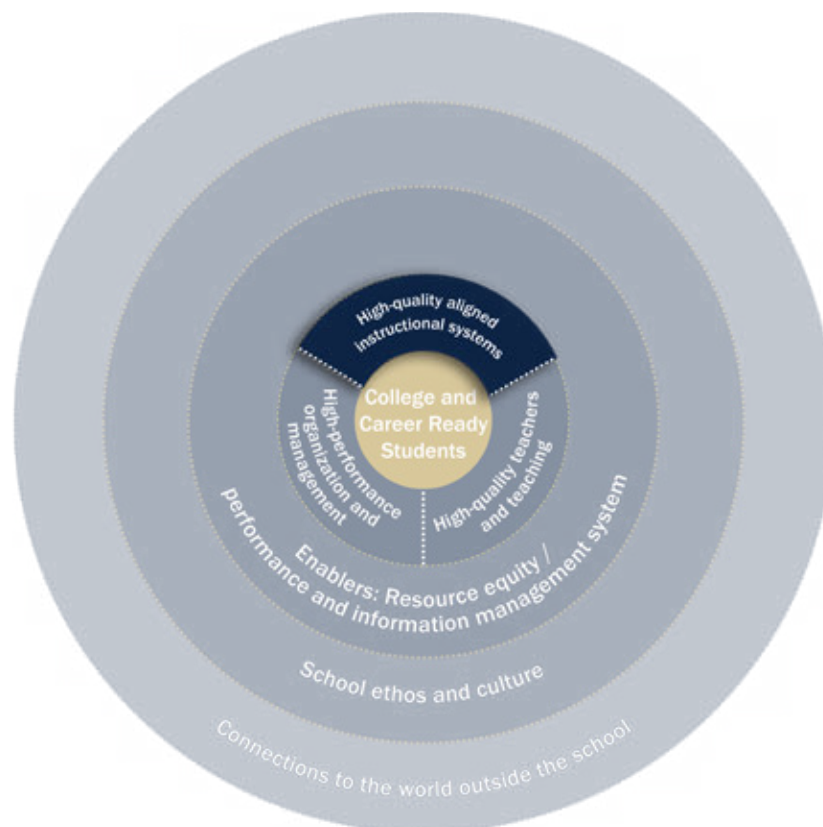
Well Designed Curriculum Frameworks

Frameworks should include maps of the core curriculum, from first grade through grade 10, which

- describe the way the curriculum in each subject and in cross-cutting subjects will progress as the student experiences that curriculum; and
- are laid out by grade or grade cluster, topic by topic, in an order that answers to what research tells us about the developmental sequence in which students actually learn this material.

Syllabi and Instructional Materials Based on the Frameworks and the Standards

- Course descriptions for the core courses in the curriculum are fully aligned with the curriculum framework.
- Each course description contains an explanation of what the student is expected to learn, what the student is expected to read, what the student is expected to write, what else the student is expected to do (e.g., projects), and how the student's work will be assessed.



- Teacher-developed, detailed teaching plans are closely based on the course descriptions, which take into account contextual factors, including student characteristics (such as English learners) and instructional materials and other resources available to support students' achievement of expectations of the course. Whenever possible, detailed teaching plans are developed collaboratively. They are revised and updated regularly to reflect experience of the course in practice.
- Instructional materials are aligned in spirit and in fact with the standards, the curriculum frameworks and the syllabi. This is exceptionally difficult in the United States now, because very few publishers of such materials have made the effort required to genuinely align their offerings with the new and more demanding standards adopted by many states, and schools typically lack the time and considerable resources required to develop powerful materials that are aligned with the new standards.
- That said, a single textbook is unlikely to provide all of the instructional materials needed to support any given course. Selecting materials from a range of sources, textbooks, and/or other resources, and determining their instructional purpose in the course, is an important part of the development of detailed teaching plans.

Formative Assessment Keyed to Progressions

- Formative assessment provides a system for enabling teachers to
 - understand, as quickly as possible, whether or not their students are grasping the material being taught;
 - use their research and craft skills to diagnose accurately problems if students are not grasping the material;
 - use the same skills to identify the best possible solution, providing whatever supports are needed to get students;

- no matter how far behind, up to the standard as quickly as possible; and
- apply this process continuously.
- It can employ tests but need not do so, because it is best done as an integral part of the process of instruction.
- It may benefit from formal data systems, but need not depend on such systems, for there are many other ways that teachers—working alone and more often together—can assess the way students are coming to grips with the material being taught.

Summative Assessment Based on Curriculum

Summative assessments are formal, external assessments which

- measure the extent to which students have mastered the curriculum;
- are derived from the standards;
- are described in the syllabus;
- are designed to capture as much as possible of the cognitive and non-cognitive knowledge, skills, behaviors, attitudes, and dispositions the school wants the students to learn;
- include timed tests, but can also include extended work described in the syllabus assigned by the teacher during the course; and
- are designed to produce standards-based, not normative, scores, and include prompts to be released along with annotated examples of student work that meet the standards for work of students on track to be ready for college and career.

Clear Gateways for Students

Gateways are clearly designated points in a student's progression through school and at the end of school at which students have to meet explicit standards to continue on specified pathways.

High-Quality Teachers and Teaching

High Teacher Enthusiasm for Teaching

A system for determining whether prospective teachers have a strong enthusiasm for teaching should be created.

Teachers Who Can Connect with Students

A system for determining whether prospective teachers are able to connect with students should be created.

Strong Teacher Mastery of Subject Matter

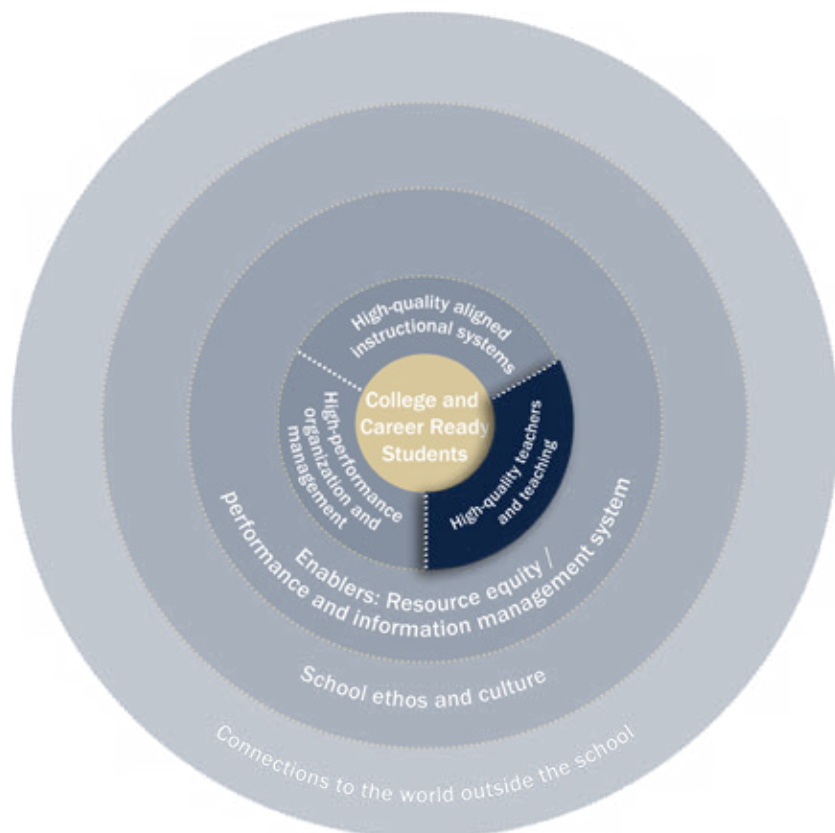
A system should be created for determining whether prospective teachers have a strong command of the subject they will teach, including but not limited to

- a deep understanding of the conceptual underpinning of the subject; and
- the knowledge associated with the subject, including:

- the current frontiers of the subject;
- the way the subject interacts with closely allied subjects (e.g., mathematics with physics and engineering); and
- the way the subject is used in the world beyond school in a wide variety of settings.

Strong Teacher Craft Knowledge

- Initial teacher education should be based on best research available, with extended opportunity to train under master teachers before carrying a full teaching load.
- Once employed in school, full participant in all activities designed to strengthen a teacher's teaching skills, including
 - critiquing and being critiqued by other teachers and school leaders;
 - mentoring and being mentored;
 - researching the global literature on challenges facing the school;



- using research literature to design improvement projects and monitor their effectiveness; and
- exposure to worldwide best practices and research.
- Teachers should be well prepared to
 - cope with the day-to-day realities of a teachers' day at school;
 - understand and support children from a wide variety of backgrounds;
 - create learning environments for students that are well-designed to support the learning expected of the students; and
 - help students develop the kind of self-confidence, self-reliance and agency as learners and individuals that will enable them to learn not just what is taught but how to learn what they need to learn when they need to learn it and how to use it well and wisely.

High-Performance Organization and Management

Career Progression in Teaching

- Teachers are given opportunities to take on progressively more demanding and varied roles as teachers in the school as they increase their demonstrated expertise and leadership capacity.
- School is organized so that teachers get frequent feedback from their colleagues and school leaders on their practice, enabling them to constantly grow and improve their expertise.
- Teachers thereby acquire more authority, responsibility, status, and, if possible, compensation.

Development Teams Led by Master Teachers

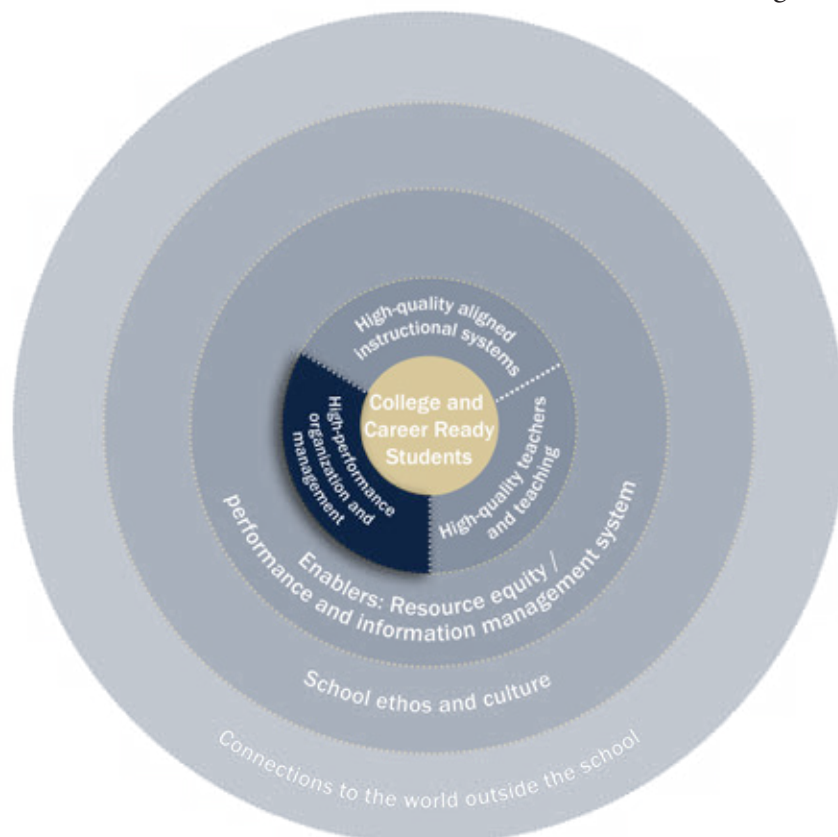
- Permanent teams for each grade level and each subject, which meet regularly are established.

- Ad hoc teams for carefully chosen major projects to improve curriculum and lessons, address other pressing priorities, to be led by master teachers.
- Each of the latter to have assignments, expected products, and deadlines.
- These teams are to be the engine of school improvement, driven by the professional staff of the school.

Continuous Improvement System

Teams use a common system or discipline for improving school performance; they

- research and document world-wide best practice;
- develop plan for new practices or units of instruction or for improving existing practices or instructional programs based on that research;
- create research and evaluation designed to assess results;
- execute plan and assess results; and
- course-correct until goal is reached.



- For instructional improvement projects, this cycle to include
 - team development or revision of instructional units;
 - demonstration by master teacher of developed unit;
 - critiques by team members; and
 - revision until goal reached, group implementation.
 - System includes extensive and continuous visits by teachers to classrooms of other teachers to learn, critique and be critiqued.
 - A similar discipline may be used not just for projects, but also for large programs and for the school as a whole.
 - When indicated, benchmarking teams sent to other schools, other states, to benchmark the best practices for adaptation.
- time in workshops delivered by “experts”; much more is done as part of the regular work of the teacher; including
 - searching the research literature for a team project;
 - benchmarking best practice as a team member; and
 - evaluating the effects of their projects on student performance.
 - Teachers are expected, in addition, to attend workshops, and so on, but, on the whole, teachers’ professional development is far more integrated with the rest of their work and much more driven by the students’ and teachers’ needs than by some central authority.
 - Because the granting of leadership responsibility to teachers depends in part on the effort that the teacher makes to continuously develop evermore professional competence, teachers have a strong incentive to acquire more expertise.

Time for School Development

- Time must be found for teacher teams to meet and work, and for teachers to work with individual students and small groups of students, if all students are to reach high standards.
- Methods that have been used for doing this include
 - increasing class sizes;
 - engaging non-teaching staff for non-teaching tasks now done by teachers;
 - creating large study halls;
 - team-teaching; and
 - not releasing teachers for coaching athletic teams or prep for them during the regular school day.

Embedded and Non-Embedded Professional Development

- In schools using modern organization and management systems, much less professional development consists of teachers spending

Physical Organization for Improvement

- Reinforce the effect of the organizational changes with the changes in the way physical space is used, including
 - facilitating collaboration among teachers by setting aside classrooms for that purpose; and
 - giving each teacher his or her own work carrel, with separate rooms for teachers organized by grade or by subject.

Class Teachers

- Top-performing countries typically organize their schools so that every student has a teacher who takes overall responsibility for that student’s experience in the school and who follows that student and his or her class through several grades.
- This is a strong antidote to the feeling of anonymity that many students feel, a way to forge a close bond not between the faculty

and the student, but also between the teacher and that student's parents.

- It keeps students from falling between cracks and getting lost in the system.
- These teachers see the connections between what is happening in school and what is happening at home, and between performance in one class and performance in another.
- The system provides every student with an advocate. These teachers are often known as “class teachers.”

Incentives for High-Performance

Incentives exist for

- teachers to acquire more expertise in their craft and their subject (e.g., the prospect of a teacher leadership position in the school);
- teachers to seek teacher leadership positions and do well in them (e.g., the prospect of recognition, higher status or more compensation);
- the best teachers to mentor new teachers and experienced teachers with less expertise (e.g., recognition, status and more compensation);
- teachers to stay on top of the research in their field and to benchmark schools and initiatives from which they and their colleagues could learn (e.g., the opportunity to travel and meet with teachers doing very interesting things, the chance to play a leadership role in the school as new changes are introduced, the chance for advancement); and

- teachers to set high standards for themselves and for their students (e.g., the satisfaction that comes from knowing that others know that you have reached high and been recognized for your achievements, the chance for advancement in your career, an opportunity to earn more and gain status in the school among both faculty and students).

Calendar, Credit, and Never Giving Up

- System are set up so that students advance when they have mastered the material, not when they get credit for courses.
- Calendars are set up so that the core curriculum—including double-period courses when necessary—has priority over all other demands on the calendar, including sports and electives.
- Faculty is committed to abandon practices that sustain a culture of tracking and sorting and to embrace measures of all kinds that will support a culture in which all students are expected to achieve at high levels.
- Faculty are expected and expect their colleagues to do whatever is necessary for all students to achieve at high levels.

A Benchmarking Culture

High priority exists in school for individual teachers and teacher teams to benchmark best practices, programs, and schools wherever they might be in the district, state, country, or world.

Enablers: Resource Equity / Performance and Information Management System

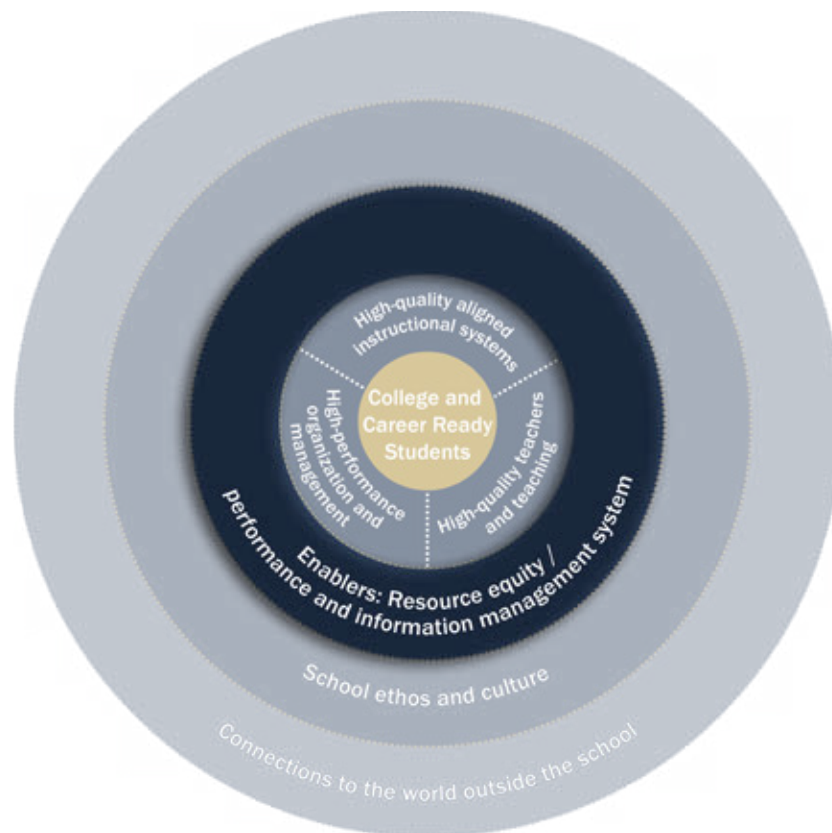
Fair Distribution of School Resources

The assumption of the whole Wheel is that every school is obligated to do whatever it takes to enable each and every student, except the most severely handicapped, while in the school, to make enough progress to prepare that student to succeed in a two- or four-year college upon graduation. Yet many students come to school with profound challenges. An equitable distribution of the resources students need to succeed implies that students who do not have

strong supports outside the school will need more resources—sometimes far more resources—than more favored students to achieve the goal. That may mean more time, different instructional materials, more varied experiences, more teachers, and more experienced teachers than others to reach the same high standards.

Effective Data and Data Analysis Systems

Comprehensive data systems should provide multiple types of information about a student's progress to teachers and to parents and facilitate communication between class teachers and parents.



School Ethos and Culture

Moral Leadership

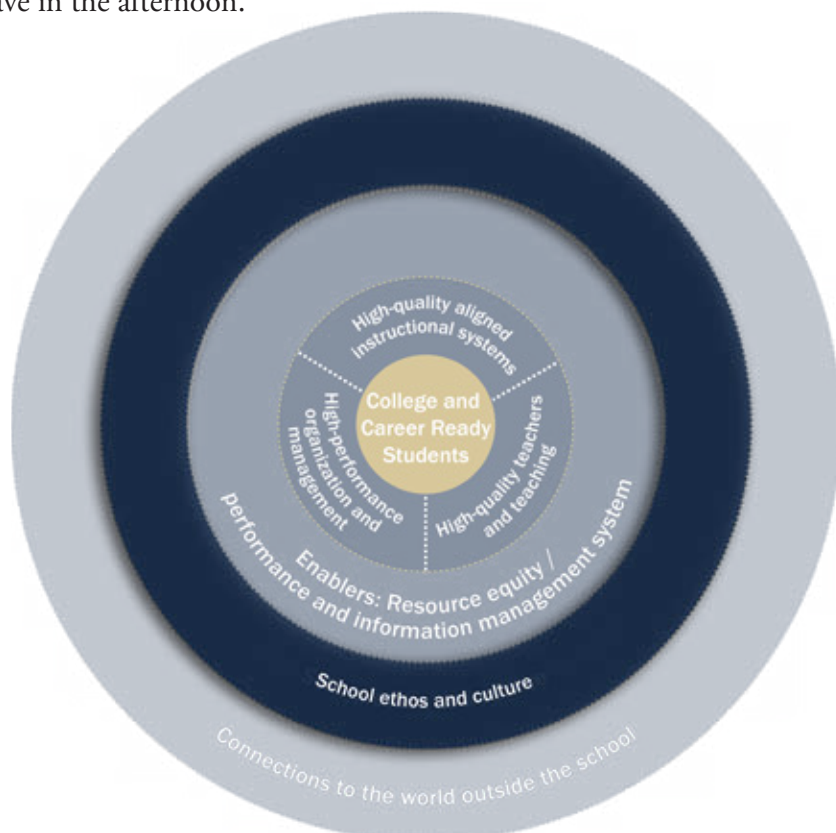
- Students are keen observers of adult behavior and quick to sense hypocrisy. They watch what they do, not what they say.
- Teachers are much the same.
- Both will follow leaders who do the right thing when it is hard to do so, and leaders who make the right choice when choosing between two goods will find that faculty and students will follow them anywhere.
- Say one thing and do another and those followers will disappear.
- The foundation of all leadership is moral leadership.

School Culture

Every school has a feel. A visitor can usually pick it up very quickly:

- Some are places that students and teachers cannot wait to get to in the morning and do not want to leave in the afternoon.

- Both students and teachers feel that they matter, what they do matters, they are respected and valued, their contributions are honored, their hard work is rewarded, their achievements are celebrated and efforts they make to get better and better at what they do will be noticed and welcomed.
- Leaders set high standards and then do their best to honor those standards in their own behavior. They are seen as fair and don't play favorites, but recognize talent and dedication when they see it.
- The inhabitants of such schools are proud of their accomplishments and eager to do even better. School is energizing for them.
- Other schools are just the opposite:
 - Student and faculty absenteeism are off the charts.
 - Morale of students and teachers is low. Both do just enough to get by.
 - Everyone complains. There is a lot of fighting among the students.
 - The faculty is divided into little cliques. Everyone badmouths everyone else.



- Personal loyalty to the principal, not merit, governs who is in and who is out on the faculty.
- One of the most important tasks for the school leader is building the first kind of culture.
- Many of the tasks described in the other parts of the wheel will contribute to this outcome, but it is the school leader more than anyone else who is responsible for the culture of the school.
- If the school has a negative culture, very little that is worthwhile will happen in that school.

Connections to the World Outside the School

Connections to Parents/Guardians and Families

Parents are, as they say, the first teachers of their children. The returns to schools of helping parents do the best job possible of helping their children to develop the knowledge, skills, attitudes, and attributes that will make them successful in school and in life is one of the highest leverage things schools can do for their students, particularly for disadvantaged students.

Connections to Health and Social Services

The prospects of many disadvantaged students can be greatly improved by providing them with dental, health, psychological, and social services that students in more favored situations either don't need or routinely get from their

parents. Among them are homeless children in the juvenile justice system, children whose parents are drug addicts, neglected children, malnourished children, and abused children. In many cases, schools can serve as the hub of coordinated health and social service programs for the whole neighborhood or community. In other cases, the schools need to collaborate with programs coordinated by others.

Connections with Community Service Agencies

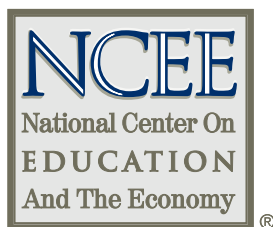
For many students, having an adult mentor can make all the difference, as can participation in a music camp or the Scouts or Boys or Girls clubs. Schools can make the connections for the students whose parents are not in a position to provide them, helping students find the thing that interests them and motivates them, gives them confidence, and paves their way to success, in school and out.



Connections with Employers

The best way to learn anything is to do it and have someone who is good at it coach you to success. Employers can provide opportunities for students to figure out what they are interested in, gain some experience, learn a craft, build confidence, and make connections to the first

leg of what will become a career. If we think of school not as a collection of classrooms but as a collection of experiences for students, then we can see that employers are in a position to provide some of the most important of those experiences.



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