I attended recently another high-level meeting of education leaders and experts to share ideas and experiences aimed at improving access and quality in learning around the globe, especially in the Global South. Per usual, the ideas were enlightened, and the experiences were inspiring. Also as usual, many of the discussions over the day identified “teacher capacity” as a major challenge in converting innovative ideas and best practices into meaningful classroom practice or other initiatives to improve learning and other education outcomes.

The concern is real. Why should systems invest in innovation if there is no or little prospect of real scaled impact in classrooms? We rightly focus on teachers because they are the principle interface between system-driven innovation and other “solutions” and student learning, and they should remain so for the foreseeable future. An innovation may prove to be positively miraculous in the laboratory of an expert-driven pilot effort. However, if the average classroom teacher proves incapable of using it effectively, its impact risks being neutered, or worse.

So, yes, teacher capacity in the successful adoption of an innovation will always warrant serious attention. Yet, the strategies on which we usually rely to strengthen teacher capacity tend to fail due to an egregious common oversight. This is the focus on teachers’ “intrinsic” capacity at the expense of their “extrinsic” capacity. Many refer to this latter notion as “enabling conditions.” I opt instead for “extrinsic capacity” in an attempt to install it indelibly in all future overall discussions of “teacher capacity.”

The two types of capacity should operate in balance, harmonizing strategically so that one set supports the others.

**Intrinsic capacities**

An overview of intrinsic capacities should be easily recognizable by most education trainers and leaders. These include illustratively:

- A conceptual and functional understanding of the new technique, tool, or other innovation.
  Teachers must comprehend fully the why, how, when, and what of the particular innovation.
Furthermore, they must recognize its practical relevance to the specific subject area, or areas, that they teach. Perhaps more importantly, teachers’ knowledge of the innovation should be adequate to let them adapt the innovation to the unique context of their classrooms.

- **The appropriate selection and use of a set of innovations in lesson planning and delivery.**
  Teachers must have the understanding to choose the “right” innovation for the right learning purpose and instructional activity. In addition to adapting it, this means using it in the correct “dosage,” at appropriate times in the instructional process, and in effective combination with other pedagogic (or other) methods.

- **A discerning appraisal of the effectiveness and impacts of the innovation.**
  Teachers must recognize whether the innovation is having the intended impact, or impacts. Are they using it properly, and is it having the intended effect on students’ learning? They must also be able to determine the answers to these questions as well as to adjust the innovation for better use and effects, when necessary.

- **The communication of an innovation’s steps in ways that the students can comprehend and apply.**
  Teachers must be able to instruct and guide their students effectively in the innovation’s use as a learning tool or strategy. This includes perceiving when students are not following well, surmising the nature of any blockage, and helping them get on track.

- **The assessment of learning related to the innovation.**
  Teachers must grasp fully all learning objectives associated with the innovation. This includes not just any associated knowledge or techniques but also the related applications of this content. It concerns equally the personal competencies an innovation might aim to foster; e.g., collaboration, problem-solving, and creativity. Teachers must also be equipped to provide students with specific helpful feedback to employ the innovation better and to derive the intended learning. In addition, they must be able to analyze assessment results to adjust their use of the innovation and, if appropriate, to summon other models or methods.

To summarize these points with an example, a teacher who has newly learned about [Project-Based Learning](#) (PBL) will need to embrace fully and functionally the idea that PBL requires students to draw on a breadth of knowledge and techniques to analyze, plan, and implement a solution to some challenge, often working together. S/he must feel capable and confident to identify projects that fit a lesson’s content and align to her students’ interests and levels. S/he must articulate clear instructions and provide the necessary resources, time, and conditions to complete the project. S/he must monitor the students’ implementation of the project, guiding them as required not just on the technical steps but also in the needed behaviors; e.g., collaboration. Lastly, s/he must assess both the process and the final product of the PBL activity, informing each student of her/his related strengths and deficits and guiding them to improve.
Extrinsic capacities

As noted above, readers may recognize many of the following **extrinsic capacities** as enabling conditions. The argument here is that they are every bit as important as and fully complementary to the intrinsic capacities that teachers must possess in order to implement an innovation effectively and derive the intended results.

- **Adequate training and support to cultivate fully the intrinsic capacities required for the innovation.**
  It is vital to train, accompany, and support teachers to translate these aspects into competent and confident practice. This happens as a process, not as an event—i.e., as an introductory training. The process may combine monitoring and support by external agents, access to manuals and other documents, coaching, consultation, and collaboration with colleagues.

- **Consistent and quality leadership.**
  Teachers must have confidence that their education leaders—the headteacher, inspector, etc.—endorse fully their use of the innovation. Even better, these leaders should expect their teachers to use it, monitor its use, and take measures to support them to improve over time in using (and adapting) it, both as individual teachers and as a group or peers. They should also recognize their efforts and accomplishments. The too frequent alternate scenario, unfortunately, is the leader who is unaware (or unconvinced) by the innovation and criticizes teachers for employing it or bans its use altogether.

- **Conducive classroom conditions.**
  The school and classroom conditions in which a teacher operates must be suitable to the innovation’s effective application. Several factors might affect this, including the availability and quality of learning materials and other resources, time in the school day, the arrangement of the classroom, and the number of students.

- **The inclusion of the associated learning outcomes in official assessment targets.**
  Teachers, leaders, students, and parents will all be motivated by the innovation’s adoption into classroom instruction if they are convinced it is likely to elevate students’ performance on...
formal assessments. Conversely, they will be inclined to eschew an innovation that they expect to distract students from mastery of the content on which they will be tested, influencing strongly their education (and professional) futures. Gravely, this is even true if the quality and relevance of the learning prepare students undeniably better for their future lives and livelihoods.

- **The authority of teachers to adapt the innovation to unique classroom characteristics.** System-driven innovation almost must occur as a generic option. One size has to fit all. This is true equally of the overall model, its component methods, and the associated materials. Yet, every classroom and school are unique. Certainly, they share traits, but to implement an innovation effectively, teachers must have the ability, support, and authority to adjust the innovation to their own classroom and school context. And the innovation must be designed to accommodate customization.

Continuing the PBL illustration from above, teachers must have received adequate initial training in the method along with continuous encouragement and opportunity to improve. The headteacher should be at the center of this, combining technical, moral, and practical support and monitoring the teachers’ use of PBL to ensure that they are indeed using the method and doing so well. Both the system and the headteacher must ensure that there is adequate time for proper PBL lessons to occur and that teachers have access to the required materials and other resources. The deeper thinking, collaboration, planning, and execution skills required to complete a project successfully must be subjected to appropriate assessment, largely so that students can learn how they might improve. In addition, systems must manage the risk of valuing rote memorization so much that students are penalized for gaining the deep and functional knowledge that comes with PBL. Finally, teachers must be able to select and organize projects that are best suited to the particular needs, interests, and circumstances of their students.

I’ll keep speaking up at meetings to remind fellow participants that capacity is not just about the aptitudes and attitudes teachers possess but also about many other factors. I’m hoping many will join me and, especially, that education systems and their partners will pay evermore strategic attention to investing simultaneously in both intrinsic and extrinsic capacities for teachers.