Instrument Showcase:
eleot
What is measured, improves. This well-known saying applies to school improvement by encouraging schools to measure what matters and use their data to continuously improve. Cognia designs evidence-gathering instruments in alignment with Cognia’s standards to provide schools the opportunity to understand their strengths and areas for improvement. Cognia’s standards are research-based, practitioner-informed, and regularly reviewed. The standards describe critical elements within a school that ensure high-quality teaching and learning and overall organizational effectiveness. Furthermore, the standards reinforce four key characteristics of effective schools: culture of learning, leadership for learning, engagement of learning, and growth in learning.

The opportunity

Improvement is driven by measurement and data. Educators can be more successful when provided regular, targeted feedback regarding learner behaviors, actions, and dispositions in the classroom. In order to support schools and educators in their continuous improvement journey and their manifestation of the standards, Cognia® developed its initial Effective Learning Environments Observation Tool® (eleot®) in 2012. This classroom observation instrument is designed to measure and promote a learner-centric environment, where learners demonstrate active engagement, agency, and self-efficacy.

The authors of eleot immersed themselves in the mindset of learners in a classroom, focusing on these essential questions: “What do learners experience during class time? How do learners respond and react to the instruction? Are learners engaged in the learning? In what ways do they interact with their peers?” Keeping these questions central to the purpose of development, the authors conducted research that aligned with and supported learner-centric instructional approaches and methodologies, including research from psychologists Piaget, Vgotsky, and Dewey. By describing specific observable learner actions, eleot helps educators and leaders parse out how learners are demonstrating engagement in their learning. Specifically, eleot provides real-time data and evidence that allows observed classroom behaviors to indicate effective learning environments, which relate to Cognia standards’ characteristics of strong learning culture, engagement, and growth. These data can help identify successes and prioritize appropriate strategies and actions to improve.

The instrument

Using Cognia’s standards and reviewing research on effective teaching and learning, learner-centric tasks, learner attitudes and dispositions, as well as digital learning expectations set forth by the International Society for Technology in Education (ISTE) Standards, eleot’s items were categorized by contexts or learning environments (pictured).
Reliability and validity evidence for eleot is generated through regular examination of the instrument. Details regarding the technical analysis of eleot, including internal reliability, convergent and discriminant validity evidence, and statistical evaluation of the underlying theoretical structure are available in the eleot Technical Brief. Together, these results provide evidence supporting the use and interpretation of eleot observation results as describing effective instruction within the seven learning environments.

The discoveries

Between July 2021 and June 2022, 2,695 schools completed over 95,339 eleot observations. 78% of schools submitting observations were in the U.S., however, non-U.S. schools submitted more observations, accounting for nearly half (45%) of total observations. For the following analysis, observations were only included if the observer had completed eleot certification training offered by Cognia. In total, data from 59,726 observations on classrooms in 1,740 schools, conducted by 3,780 certified observers were examined. Note: Beginning in 2020, eleot observations were allowed to be completed in remote settings. At this time, the data collected do not indicate whether the eleot observation was completed remotely, the lesson was delivered remotely, or if both were remote.

Key strengths across the observations include:

- Over 86% of learners in classrooms observed demonstrated a positive sense of community, while over 91% of observed classrooms show learners with supportive relationships with their teacher.
- Approximately 88% of observations across grade bands showed learners are supported to understand content and accomplish tasks.
- Over 93% of classrooms observed were seen as treating learners in a fair and consistent manner.
- Across grade bands, more than 72% of the classroom observations showed learners took responsibility for their learning.
- In more than 75% of classroom observations, learners demonstrated behaviors to meet the high expectations set by themselves or their teachers.
- Across grade bands, upwards of 83% of observations indicate values of evident and very evident for learners being actively engaged in learning activities.
- 80% of elementary, 79% of middle school, and 77% of high school classrooms observed showed learners as evident and very evident in their ability to demonstrate their understanding of the lesson and content.

Additional findings:

- Approximately 65% of observed classrooms across grade spans indicated evident and very evident levels of learners making connections to real life experiences.
- Across grade spans, 65% of classrooms observed showed learners demonstrating and describing high quality work.
- Across grade bands and observations, about 60% of classroom observations had learners who were able to explain how their work is assessed.
- Around 60% of classrooms observed across all grade bands showed learners having evident or very evident opportunities to demonstrate and develop empathy for differences among learners.
- Close to 55% of classrooms observed showed evidence of learners collaborating with their peers to accomplish tasks.

The implications

Strengths: The data submitted across Cognia’s network paints a positive picture of learner environments, particularly related to classroom culture, active engagement, and understanding of their work. Across multiple observation items, learners demonstrated a sense of community within the classroom setting or a feeling of belonging. Observation data overwhelmingly showed that students were treated fairly, regardless of the grade band. Another positive result to highlight is
that learners were supported by their teachers to complete their work. The classroom observation data indicate that most of the time, learners demonstrated responsibility for their learning, meaning there was a high level of commitment to learning and being engaged.

Opportunities: Even in areas of strength indicated by the data, opportunities exist. For example, though the data showed more than 86% of learners in classrooms demonstrated a positive sense of community, the data also show that in 14% of observations, evidence of positive community was not present. As such, educators should be mindful of interpretations of their data and the opportunity presented to ensure all learners are provided with effective learning conditions.

Another opportunity is to increase learners making connections to real-life experiences. When learning is relevant, academic achievement is higher, and learners are motivated to do their best. Additionally, findings from the observations suggest the need for an increased focus on learner ability to describe their work and how it is assessed. Observation data indicated that although most learners demonstrated responsibility for their learning, they were less frequently observed demonstrating and talking about what the teacher expected in terms of high-quality work. Over time, learners that show less interest in taking initiative begin to forget assignments and say they are unsure what it takes to do high-quality work. Additionally, they might be showing signs of disinterest in learning and exhibit waning self-efficacy. Cultivating learners’ understanding of and capacity to explain the criteria to do their best work also helps them navigate their learning and self-monitor their learning progress, thereby building agency. When learners can explain in their own words how their work is assessed or graded, they are better able to complete high-quality work.

There is a striking disconnect between belonging and collaborating with their peers toward a common learning goal in the observed data. It is possible that collaborating with others was difficult if the learners were observed learning remotely. This is one limitation of the data set described above. Another notable finding is that 60% of the observations indicated learners had opportunities to show empathy and respect towards their peers who are different from them. This means that about 40% of the time, learners either did not have opportunities or did not demonstrate these social and emotional skills. These data could mean that learners may need increased support and opportunity to demonstrate their collaboration skills and to interact with their peers who are not like them. When collaboration is a regular part of learning activities and experiences, learners can develop the critical skills that promote peer community.

The support

Remember, what is measured, improves. Cognia provides eleot to schools as a means to support high-quality measurement with the intention of driving improvement prioritization and activities within schools. By regularly using eleot and other evidence-gathering instruments, schools can better examine their strengths and areas of opportunity, particularly in relation to Cognia’s standards and key characteristics. This ability to strategically assess critical elements underpinning high-quality teaching and learning and overall organizational effectiveness is core to continuous school improvement.

At the classroom level, there are suggested research-based practices outlined in Appendix A that can increase learners’ level of engagement in more than one learning environment and are appropriate for learners in grades 3–12. Note that this list is not exhaustive and that interventions and strategies should be selected after a review of your own school’s data. Suggested strategies include discourse-based community building (in both synchronous and asynchronous contexts), collaboration process-task rubrics, staged self-directed learning models, and lesson wrappers.

Cognia is committed to being a supportive partner for schools seeking to promote effective learning environments. Through training and interpretation
support of eleot, provided in both synchronous and asynchronous opportunities, technical reporting and interpretation guides, and regular review and improvement of the instrument, Cognia is a dependable partner in measuring, understanding, and improving learning. Other instruments and services provided by Cognia, such as the Student Engagement Survey, Teacher Observation Tool, and customized professional learning services are all similarly aligned to Cognia’s standards and intended to support a multiple measures approach of continuous school improvement. For more information on available services and which may be best for your school, contact your local Cognia representative.
Appendix A

Instructional Strategies to Promote Effective Learning Environments

### Discourse-based Synchronous and Asynchronous Community Building

<table>
<thead>
<tr>
<th><strong>THE WHAT</strong></th>
<th><strong>THE HOW</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Students and/or teachers utilize tools and resources to connect through social discourse by engaging in combination and balance of synchronous and asynchronous participation.</td>
<td>Student activities are developed for purposeful relationship- and trust-building.</td>
</tr>
<tr>
<td>Synchronous meetings promote real-time and stable means of communication and a sense of social presence.</td>
<td>Discourse-based synchronous meetings can include turn-and-talk, think-pair-share, debates, presentations, or adding comments during discussions.</td>
</tr>
<tr>
<td>Asynchronous incorporation of community building promotes deep connections and reflection by allowing participation and sharing without pressure of time or disruptions that can be overwhelming in synchronous meetings.</td>
<td>Asynchronous activities engage everyone to contribute to the community in different ways that may be more comfortable for some.</td>
</tr>
<tr>
<td>Read/write activities, discussion boards, social networking, and group projects all initiate opportunities for social discourse through non-traditional approaches.</td>
<td></td>
</tr>
</tbody>
</table>

### Collaboration Process-Tasks Rubric

<table>
<thead>
<tr>
<th><strong>THE WHAT</strong></th>
<th><strong>THE HOW</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers and students use a grading rubric that focuses on the process of collaboration as well as the product so that learning to work together is a scaffolded and measurable objective.</td>
<td>Create a rubric that demonstrates structured interactions that contribute to the process of effective collaboration. Such interactions could include establishing team roles, agreement of consequences for neglected responsibilities, team contract, and identify milestones.</td>
</tr>
</tbody>
</table>
Staged Self-Direction Learning Model

**THE WHAT**
The teacher identifies students’ varying abilities to be self-directed in their learning and ways to progress students to higher stages.

**THE HOW**
Using Grow’s (1991) Staged Self Directed Learning Model provides the teacher with understanding of where the learner is, the learner’s needs, and how the teacher can effectively provide teaching and learning opportunities that will increase student self-direction.

<table>
<thead>
<tr>
<th>STAGE</th>
<th>STUDENT</th>
<th>TEACHER</th>
<th>EXAMPLES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dependent</td>
<td>Authority Coach</td>
<td>Coaching with immediate feedback, Drill, Informational lecture, Overcoming deficiencies and resistance.</td>
</tr>
<tr>
<td>2</td>
<td>Interested</td>
<td>Motivator, guide</td>
<td>Inspiring lecture plus guided discussion, Goal-setting and learning strategies.</td>
</tr>
<tr>
<td>3</td>
<td>Involved</td>
<td>Facilitator</td>
<td>Discussion facilitated by teacher who participates as equal, Seminar, Group projects.</td>
</tr>
<tr>
<td>4</td>
<td>Self-directed</td>
<td>Consultant, delegator</td>
<td>Internship, dissertation, individual work or self-directed study-group.</td>
</tr>
</tbody>
</table>

Inquiry Circle

**THE WHAT**
Students come together as a small group to discuss and solve students’ questions about a known concept or skill. Each student contributes by providing strategies ahead of time as a guide to authentic group discussion.

**THE HOW**
Centered around a question, the small group of students work together through the inquiry process of

- explore or assumptions,
- investigate or SLED (sketch, label, estimate, discuss),
- process or calculate, and
- go public or articulate.

By focusing on the skill or concept, students engage in critical thinking, transfer of strategies, communication, and interpersonal skills.
Lesson Wrapper

**THE WHAT**

Students are given an assignment or task along with a self-assessment question that focuses their attention on the skills they need for the assignment.

**THE HOW**

A lesson wrapper fosters metacognitive reflection, monitoring, and regulation at the start and end of a lesson.

At the end of the assignment, task follow-up questions prompt students to reflect on their skills and describe how they will use this experience for future assignments.

Circle of Power and Respect (CPR)

**THE WHAT**

Students practice and apply a format of greeting, sharing, activity, and daily news to develop leadership, autonomy, safety, inclusivity, and positive relationships.

**THE HOW**

Students gather as a whole group for 20 minutes each day to move from teacher-facilitated to learner-directed activities.

The teacher models the practice and guides a pair of students through a process to design and lead.

About Cognia

Cognia™ is a global, nonprofit improvement organization dedicated to helping institutions and other education providers grow learners, teachers, and leaders. Cognia offers accreditation and certification, assessment, and professional services within a framework of continuous improvement. Serving 36,000 public and private institutions from early learning through high school in more than 90 countries, Cognia brings a global perspective to advancing teaching and learning.

*Find out more at cognia.org.*
Further Reading


