Herding CATs: Building Student Engagement in Remote Learning in the United States and Uzbekistan

E. Joan Blum

I. Introduction

In the spring and summer of 2020, law teachers flocked to the many workshops, webinars, and online courses on remote learning that were offered in the wake of the forced shift to remote teaching caused by the COVID-19 pandemic.[1] Teachers were eager to compare their experiences with emergency remote teaching and get started on designing remote courses to prepare for a possible near-term future without in-person teaching. In most of the programs I attended, including the programs I co-led for teachers at Tashkent State University of Law (TSUL)[2] in Uzbekistan, the topic of student engagement[3] was near the top of the agenda. One reason participants wanted to talk about student engagement was their concern about whether there would be sufficient opportunity for students to interact with teachers and other students in the remote environment.

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1.   So many law teachers signed up for the mini-course on remote teaching offered by CALI (Center for Computer-Assisted Legal Instruction) in June 2020 that the organizers informed participants that they had to change the format of the program from online course to webinar. *Preparing for the Future of Legal Education—Online Teaching Tips & Techniques, Welcome to the Mini-Course*, CALI (2023), https://onlineteaching.classcaster.net/.

2.   TSUL is the principal state institution for legal education in Uzbekistan.

3.   Student engagement is a broad topic, with an extensive literature. *See generally* Elizabeth Barkley & Claire Howell Major, Student Engagement Techniques: A Handbook for College Faculty 3-15 (2020) and sources cited therein. There are numerous facets of student engagement, and correspondingly myriad ways to engage students. This essay addresses the facet of student engagement teachers seemed most worried about in the programs on remote learning in the spring and summer of 2020—cognitive engagement—that is, "student intellectual investment in the content, lesson, or activity." *Id.* at 8.

This essay discusses how law teachers can address that concern by adapting classroom assessment techniques,[4] or CATs, a subset of formative assessments,[5] as active learning methods to generate student cognitive engagement in the remote learning environment. Designed "to help teachers find out what students are learning in the classroom and how well they are learning it,"[6] CATs require students to interact with the teacher and with course content; thus, in addition to providing information about learning, CATs can be used as methods to engage students actively in learning.[7] CATs adapt easily from the physical to the virtual classroom, which to many law teachers in the United States, offers the promise of engaging students in a manner similar to that of the physical classroom. In light of drawbacks of the virtual classroom, however, U.S. law teachers may find instructive the experience of teachers at TSUL, who have devised ways to employ activities that function similarly to CATs in lower-bandwidth contexts.

This essay first briefly describes the transition to emergency remote teaching in the United States and Uzbekistan in the spring of 2020. It then addresses the relationship of formative assessment and cognitive student engagement. It goes on to discuss CATs in general and the potential to adapt CATs as tools to engage students cognitively in remote learning, with examples of CATs that can be used by law teachers in the United States, where general availability of high-speed internet supports virtual classroom platforms and other high-bandwidth tools, and in Uzbekistan, where lack of uniform high-speed internet access requires greater reliance on lower-bandwidth tools.

4.   *See generally* Thomas A. Angelo & K. Patricia Cross, Classroom Assessment Techniques (2d ed. 1993). The term "classroom assessment technique" with its acronym "CAT" was popularized by Thomas Angelo and Patricia Cross in the first edition of their book published in 1988. K. Patricia Cross & Thomas A. Angelo, Classroom Assessment Techniques: A Handbook for Faculty (1988), https://files.eric.ed.gov/fulltext/ED317097.pdf. This widely used and frequently cited book gives theoretical background and practical guidance on implementing a set of fifty specific in-class formative exercises. Many authors discuss the use of CATs in legal education. *See, e.g.,* Michael Hunter Schwartz et al., Teaching Law by Design 169–73 (2d ed. 2017); Gregory S. Munro, *How Do We Know If We Are Achieving Our Goals? Strategies for Assessing the Outcome of Curricular Innovation*, 1 J. Ass'n Legal Writing Directors 229, 240–44 (2002); Herbert N. Ramy, *Moving Students from Hearing and Forgetting to Doing and Understanding: A Manual for Assessment in Law School*, 41 Cap. U. L Rev. 837, 873–79 (2013).

5.   This essay draws on the literature of formative assessment, but in no way purports to present a comprehensive review. For extensive citations to the literature about formative assessment in legal education and in education, *see generally* Heather M. Field, *A Tax Professor's Guide to Formative Assessment*, 22 Fla. Tax Rev. 363, 370 nn.6–7 (2019).

6.   Angelo & Cross *supra* note 4, at 4.

7.   This essay takes up the invitation of Angelo and Cross to consider the fifty CATs in their book as "starting points" and not as a closed universe. Angelo & Cross *supra* note 4, at 105-14. Thus, this essay uses the term "CAT" to apply generally, beyond the set of fifty exercises detailed in the book, to classroom activities that, similar to those in the book, include a student's demonstration of understanding followed by feedback, which can be used by teacher and student to improve future learning and to build student learning in real time. On these two functions of formative assessments, see notes 17 through 31 *infra* and accompanying text.

II. Transition to Emergency Remote Teaching

In March 2020, law schools in the United States had to make a rapid transition to remote teaching when most law schools suspended in-person classes in the face of the COVID-19 outbreak. Similarly, when the magnitude of the pandemic became apparent in Uzbekistan, TSUL made an abrupt shift to remote instruction.[8] TSUL closed for two weeks in March to allow faculty to prepare for remote teaching; students were sent home, many of them to their families in the "Regions," provinces outside Tashkent City.[9]

The virus arrived in Uzbekistan a few weeks after it erupted in the United States, so a team of Boston College Law faculty[10] was in a position to use our experience with emergency remote teaching and our familiarity with TSUL[11] to help our colleagues at TSUL make the transition. These efforts included weekly online working sessions[12] with members of TSUL's academic leadership team in March and April to provide support for emergency remote teaching, and, in May and June, a total of fourteen hours of online training for TSUL faculty in remote teaching methods to help them prepare for future teaching online. In consultation with the Boston College Law team, TSUL faculty who participated in these workshops then conducted further workshops, in Russian and Uzbek, for their TSUL colleagues.[13]

Differences in internet infrastructure and the structure and traditions of legal education in the United States and Uzbekistan influenced decisions teachers

8.		Islambek Rustambekov, *Development of Distance Education in the Training of Legal Personnel in the Republic of Uzbekistan during the Pandemic*, Regional Dialogue (Apr. 20, 2020), https://web.archive.org/web/20200808170927/https://www.regionaldialogue.org/single-post/2020/04/20/Article-by-TSUL-Deputy-Rector-Islambek-Rustambekov-on-the-Development-of-Distance-Education-in-the-Training-of-Legal-Personnel-in-the-Republic-of-Uzbekistan-during-the-Pandemic.

9.		*Id.*

10.		The BC Law team included Susan Simone Kang, then Director of Graduate Legal Education and International Programs and Adjunct Professor, the late Kevin Curtin, Adjunct Professor, and the author.

11.		TSUL and Boston College Law executed a memorandum of cooperation in 2017. The partnership between TSUL and BC Law was facilitated by Regional Dialogue, a nongovernmental organization based in Slovenia that has been involved in rule of law projects in Uzbekistan since 2011. Regional Dialogue's principal donor is the U.S. Department of State; funding specifically for legal education is provided by the State Department's Democracy, Rule of Law and Labor Bureau (DRL). In addition to cooperation on remote teaching, the TSUL/Boston College Law partnership included training programs for TSUL faculty on clinic management, academic legal research and writing, active teaching methods, and outcomes-based course design; courses and mock trial programs for law students; remote coaching of TSUL's Jessup Competition team; and ad hoc lectures for TSUL students and faculty by Boston College Law professors. I conducted faculty development workshops at TSUL in 2017 and 2018 and visited at TSUL in the spring of 2019 as TSUL's first full semester visiting professor from the United States. I returned to TSUL to conduct further workshops for faculty and students in December 2019, and as a Fulbright Scholar for the 2023 spring semester.

12.		These working sessions were facilitated by Regional Dialogue.

13.		One of the goals of the workshops conducted by the Boston College Law team in May and June was to train the trainer—to identify TSUL teachers to conduct future workshops in-house.

in each country made to implement remote teaching. When law teachers in the United States made the shift to emergency remote teaching, many gravitated to synchronous teaching on virtual classroom platforms like Zoom in an effort to replicate as closely as possible the way teachers and students interact in the physical classroom. Some Boston College Law faculty thought, however, that student engagement did not fully survive the shift online because teacher-student interaction was so different on Zoom. Internet access issues[14] and preference for the lecture method of teaching[15] drew many TSUL faculty members in the direction of asynchronous teaching with prerecorded materials, such as videos and podcasts. Like their U.S. counterparts, TSUL teachers were concerned about student engagement. Some reported that when TSUL transitioned from in-person classes to emergency remote teaching, students lacked motivation to engage with video lectures that had been uploaded to the internet; one teacher remarked that it seemed as if students were simply waiting for in-person classes to resume.[16]

III. Formative Assessment and Student Cognitive Engagement

Understanding formative assessment as "assessment for learning"[17] is a good starting point for discussing using CATs to foster cognitive student engagement in remote learning.[18] An assessment is "formative" when its purpose is

14. Rustambekov, *supra* note 8.

15. Aziz Ismatov, *Legal Education in Uzbekistan: Historical Overview and Challenges of Transition*, Ctr. for Asian Legal Exchange 48–50 (July 2019), https://cale.law.nagoya-u.ac.jp/wp/wp-content/uploads/2021/04/CALE-Discussion-PaperNo18.pdf. This paper reflects the author's understanding of the state of legal education in Uzbekistan at the time his paper was written (early 2019). Since then, changes in TSUL's administration have resulted in changes in some of the conditions described in the paper. *See also infra* text accompanying notes 43 through 56, which reflect conditions in early 2023.

16. Comment by participant in workshop for TSUL faculty on remote learning. (May 12, 2020) (notes on file with the author).

17. Education researchers distinguish assessment "for" learning (formative assessment) from assessment "of" learning (summative assessment). *See, e.g.,* Dylan Wiliam, *What is Assessment for Learning?* 37 Stud. Educ. Evaluation 3, 13 (2011); J.W. Gikandi et al., *Online formative assessment in higher education: A review of the literature*, 57 Comput. & Educ. 2333, 2336-37 (2011).

18. *See, e.g.*, Susan M. Brookhart et al., *Promoting Student Ownership of Learning Through High-Impact Formative Assessment Practices*, 6 J. Multidisciplinary Evaluation no 12, at 52, 53 (2009) https://journals.sfu.ca/jmde/index.php/jmde_1/article/view/234 ("Research suggests that, in particular, achievement increases when students experience formative assessment."); Ian Clark, *Formative Assessment: Assessment is for Self-Regulated Learning*, 24 Educ. Psych. Rev. 205, 217 (2012). ("Formative assessment is not a test or a tool (a more fine-grained test) but a process with the potential to support learning beyond school years by developing learning strategies which individuals may rely on across their entire life-span."); Wiliam, *supra* note 17, at 13 (". . . integrating assessment with instruction may well have unprecedented power to increase student engagement and to improve learning outcomes."). On cognitive engagement in remote learning, *see, e.g.*, Marcia D. Dixson, *Measuring Student Engagement in the Online Course: The Online Student Engagement Scale (OSE)*, 19(4) Online Learning (2015), https://olj.onlinelearningconsortium.org/index.php/olj/article/view/561/165; Bing Xu et al*., Effects of Teacher Role on Student Engagement in WeChat-Based Online Discussion Learning*, 157 Comput. & Educ. 103956, at 1-2 (Nov. 2020).

to construct, or *form*, learning.[19] The classic view of formative assessment is that it advances student learning through give-and-take between teacher and student[20] on information about how the student is doing in relation to learning objectives.[21] Formative assessment may take place when a teacher and student interact inside the classroom or when the teacher provides feedback in some form on work submitted by the student.

Both teachers and students benefit from formative assessment. When a student demonstrates understanding of what is being taught, and the teacher reflects on the student's demonstration, the teacher gains information that helps her assess the effectiveness of her teaching. Based on this assessment, the teacher may adjust her approach. When the teacher provides meaningful feedback on student demonstrations, students benefit from receiving information they can use to reflect on their understanding of what is being taught. This reflection puts them in a position to make decisions about the next steps they need to take in learning.[22]

The notion of formative assessment as a process for improving learning is rooted in the social constructivist view of learning, in which the student learns by interacting with the teacher and other students as well as with content and builds new knowledge on the foundation of what the student already knows.[23] In this view, a key ingredient in learning is developing metacognitive skills that empower the student to regulate (make decisions about) her own learning.[24]

19. Elise Trumbull & Andrea Lash, *Understanding Formative Assessment*: *Insights from Learning Theory and Measurement Theory*, WestEd 1, 2 (Apr. 2013), https://www.wested.org/online_pubs/resource1307.pdf.

20. The expression "give-and-take" in this context comes from a conversation with Nina Farber, Boston College Law's director of academic success programs (notes on file with author). *See also* Connie M. Moss & Susan M. Brookhart, Advancing Formative Assessment in Every Classroom 5-6 (2d ed. 2019).

21. Moss & Brookhart, *supra* note 20, at 6; W. James Popham, Transformative Assessment 5-6 (2008).

22. *See, e.g.,* Paul Black & Dylan Wiliam, *Assessment and Classroom Learning*, 5 Assessment in Educ.: Principles, Pol'y & Prac. 7, 7–8 (1998); Susan M. Brookhart, *Summative and Formative Feedback*, *in* Cambridge Handbook of Instructional Feedback 52, 65 (Anastasiya A. Lipnevich & Jeffrey K. Smith eds., 2018); John Hattie & Helen Timperley, *The Power of Feedback*, 77 Rev. Educ. Rsch. 81, 86 (2007), (articulating three questions that effective feedback must answer: "Where am I going? (What are the goals?), How am I going? (What progress is being made toward the goal?), and Where to next? (What activities need to be undertaken to make better progress?)"); Margaret Heritage, *Formative Assessment: What Do Teachers Need to Know and Do?* 89 Phi Delta Kappan 140, 141-42 (2007); Trumbull & Lash, *supra* note 19, at 3-4.

23. *See, e.g.*, Dixson, *supra* note 18, at 2-3; Ernesto Panadero et al., *Fusing Self-Regulated Learning and Formative Assessment*, 45 Austl. Educ. Rsch. 13, 13–16 (2018); Trumbull & Lash, *supra* note 19, at 4-7.

24. *See, e.g.*, Ian Clark, *Assessment is for Learning: Formative Assessment and Positive Learning Interactions*, 2(1) Fla. J. Educ. Admin. & Pol'y 1, 13 (2008); Lorna Earl, Assessment as Learning: Using Classroom Assessment to Maximize Student Learning 28 (2d ed. 2014); Field, *supra* note 5, at 377–78; Jaime Alison Lee, *From Socrates to Selfies: Legal Education and the Metacognitive Revolution*, 12 Drexel L. Rev. 227, 229–35 (2020); David J. Nicol & Debra Macfarlane-Dick, *Formative*

Formative assessment fits within this view of learning because it creates an occasion for 1) the student to demonstrate understanding of content[25] she is supposed to learn, 2) the teacher (or someone else, perhaps another student) to give the student feedback on the demonstration, and 3) the student to reflect on the feedback to self-assess her understanding and then use that self-assessment to make decisions about the next steps she needs to take.[26]

In addition to yielding information that helps the teacher and student make decisions about *future* teaching and learning, the process of formative assessment builds student learning in real time as the process unfolds.[27] This function of formative assessment has been called assessment "as" learning.[28] Educators agree that students learn most effectively when they engage cognitively, by actively analyzing, synthesizing, and evaluating material.[29] Formative assessment requires the student to interact actively with content and with the teacher, setting the student up to consolidate new knowledge.[30] Thus, the formative assessment process can be seen as "almost indistinguishable from instruction."[31]

Although formative assessment of students always requires some form of meaningful feedback,[32] it does not require a grade;[33] unlike a summative assess-

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Assessment and Self-Regulated Learning: A Model and Seven Principles of Good Feedback Practice 31 STUD. HIGHER EDUC. 199, 215 (2007); Anthony S. Niedwiecki, *Lawyers and Learning: A Metacognitive Approach to Legal Education* 13 WIDENER L. REV. 33, 35 (2006); Panadero et al., *supra* note 23, at 14-16.

25. As used here, the word "content" denotes information, skills, and values.

26. *See, e.g.*, Clark, *supra* note 24, at 13-14; Hattie & Timperley, *supra* note 22, at 86-90; Nicol & Macfarlane-Dick, *supra* note 24, at 202.

27. *See, e.g.*, EARL, *supra* note 24, at 28; Trumbull & Lash, *supra* note 19, at 3-4.

28. *See, e.g.*, EARL, *supra* note 24, at 28.

29. *See, e.g.,* Michelene T.H. Chi & Ruth Wylie, *The ICAP Framework: Linking Cognitive Engagement to Active Learning Outcomes*, 49 EDUC. PSYCH. 219, 219 (2014); EARL, *supra* note 24, at 28; Derek Luke, *From Filling Buckets to Lighting Fires: The ABA Standards and the Effect of Teaching Methods, Assessments, and Feedback on Student Learning Outcomes*, 81 U. PITT. L. REV. 209, 232 (2019); Liam Elphick, *Adapting Law Lectures to Maximise Student Engagement: Is it Time to "Transform"?* 28 LEGAL EDUC. REV. no 1, article 5, at 22-3 (2018); James D. Pickering, *Cognitive Engagement: A More Reliable Proxy for Learning?* 27 MED. SCI. EDUC. 821, 822 (2017).

30. *See, e.g.*, David Boud & Rebeca Soler, *Sustainable Assessment Revisited*, 41 ASSESSMENT & EVALUATION IN HIGHER EDUC. 400, 411 (2016); Susan M. Brookhart, *A Theoretical Framework for the Role of Classroom Assessment in Motivating Student Effort and Achievement,* 10 APPLIED MEASUREMENT EDUC. 161, 162-63 (1997); Clark, *supra* note 24, at 6; Young K. Kim & Carol A. Lundberg, *A Structural Model of the Relationship Between Student-Faculty Interaction and Cognitive Skills Development Among College Students*, 57 RSCH. HIGHER EDUC. 289, 291-92 (2016). On cognitive engagement in remote learning, see, for example, Dixson, *supra* note 18; Gikandi et al., *supra* note 17, at 2346; Xu et al., *supra* note 18, at 7.

31. Trumbull & Lash, *supra* note 19, at 5.

32. Black & Wiliam, *supra* note 22, at 53-54; Brookhart, *supra* note 30, at 163.

33. Indeed, most experts maintain that a formative assessment should never be graded. *See, e.g.*, BROOKHART, FORMATIVE ASSESSMENT TOOLS FOR EVERY CLASSROOM 4 (2d. ed. 2010) ("Formative assessment is not used for grading."); CAROL ANN TOMLINSON & TONYA R. MOON, ASSESSMENT AND STUDENT SUCCESS IN THE DIFFERENTIATED CLASSROOM 93 (2013); Thomas R.

ment, a formative assessment is not designed to measure a student's performance against a benchmark.[34] Any learning activity can be a formative assessment if it includes feedback of some sort on what a student says or does in relation to course content and thus yields information that both student and teacher can use to advance learning.[35] Formative assessment includes an on-the-spot check-in with a student, a planned in-class activity, or a more formal out-of-class assignment.[36] A formative assessment may be administered to an individual or to a group; it may be formal or informal; it may be written or oral.[37]

In contrast to formative assessment, summative assessment is designed to measure.[38] A summative assessment is administered at the end of a unit or a course to determine the extent to which the student has achieved learning objectives.[39] As a summative assessment compares student achievement with a benchmark, it is almost always graded.[40] Even though the purposes of summative assessment and formative assessment differ, a summative assessment may provide the occasion for formative assessment when the summative assessment is accompanied by feedback that promotes cognitive engagement by the student.

Guskey, *Grades Versus Comments: Research on Student Feedback*, Kappan (2019), https://kappanonline. org/grades-versus-comments-research-student-feedback-guskey/ (stating that in some schools, grades on formative assessments are required as part of their reporting process); Emma Smith & Stephen Gorad, *'They Don't Give Us Our Marks': The Role of Formative Feedback in Student Progress*, 12 Assessment in Educ.: Principles, pol'y & Prac. 21, 31–32 (discussing misgivings of secondary school students who received feedback but no grades on their work).

34.   Although ABA Standard 314, *infra* note 57, uses the word "measure" in connection with both formative and summative assessment, most education researchers assume that the information a student or teacher gets through formative assessment is not quantifiable. *See*, *e.g.*, Trumbull & Lash, *supra* note 19, at 7–8.

35.   Some researchers maintain that a formative assessment must be planned. *See, e.g.,* Popham, *supra* note 21, at 6-7. The more widely held view, however, is that a formative assessment may be spontaneous. *See, e.g.,* Heritage, *supra* note 22, at 141; Trumbull & Lash, *supra* note 19, at 2–3; Mantz Yorke, *Formative Assessment in Higher Education: Moves Towards Theory and the Enhancement of Pedagogic Practic*e, 45 Higher Educ. 477, 478 (2003).

36.   Heritage, *supra* note 22, at 141.

37.   *See* Susan M. Brookhart, How to Give Effective Feedback to Your Students 49-50 (2d ed., 2017); Field, *supra* note 5, at 385; Heritage, *supra* note 22, at 141.

38.   *See, e.g.,* Field, *supra* note 5, at 376. Some education researchers argue for a strict dichotomy between formative and summative assessment. *See, e.g.*, Moss & Brookhart, *supra* note 20, at 7. Others see a more permeable boundary between formative and summative assessment. *See, e.g.*, Boud & Soler, *supra* note 30, at 402; Alice Man Sze Lau, *Formative good, summative bad? - A Review of the Dichotomy in Assessment Literature*, 40 J. Further & Higher Educ. 509, 509-10 (2016); Maddalena Taras, *Assessment -Summative and Formative - Some Theoretical Reflections*, 53 British J. Educ. Stud. 466, 475–76 (2005).

39.   Tomlinson & Moon, *supra* note 33, at 2-3; Ramy, *supra* note 4, at 843-4.

40.   Brookhart, *supra* note 22, at 56 ("[C]lassroom tests that contribute to the final grade are by definition summative.").

Thus, summative assessment has the potential to contribute to real-time learning in addition to measuring achievement.[41]

TSUL's academic leadership supports the use of formative assessments within and outside the classroom.[42] In the bachelor's degree program at TSUL, instruction is divided between eighty-student "lectures," in which senior faculty deliver traditional lectures to largely passive student audiences, and twenty-student tutorials, generally referred to as "seminars," in which more junior faculty members help students assimilate lecture content.[43] Although TSUL encourages all faculty—lecturers and seminar teachers alike—to use interactive teaching methods that provide opportunity for formative assessment,[44] lecturers are less likely than seminar teachers to employ these teaching methods.[45] Among the factors that contribute to the slower pace of adoption of in-class formative assessment practices by lecturers is the prevailing view among these more senior teachers that the teacher's role is to transmit knowledge, as opposed to guiding students as they construct learning.[46] Other factors include the eighty-student class size of most lectures, which makes them less conducive to teacher-student interaction, and that most lecturers do not regularly require students to prepare in advance for lectures, so there is little occasion for feedback conveyed through in-depth interaction between lecturers and individual students during or imme-diately after class.[47] While some lecturers assign in-class group work, they do not

41. *See, e.g.,* Angela Lumpkin et al., *Student Perceptions of Active Learning*, 49 College Student Journal 121, 124–25 (2015); *cf.* Trumbull & Lash, *supra* note 19, at 5 (discussing how formative assessment contributes to learning).

42. Conversation with senior member of TSUL's administration, March 30, 2023 (notes on file with the author).

43. This is still the prevailing model, although individual lecturers are free to deviate from the model. Some lecturers use a variety of teaching methods that blur the distinction between lecture and seminar. Additional curricular reforms are introducing clinical legal education, practical skills courses, and other modifications of the traditional curriculum to provide practi-cal training as well as theoretical knowledge. Conversation with senior member of TSUL's administration, March 24, 2023 (notes on file with the author).

44. Training programs for TSUL faculty on interactive teaching methods include those conducted by the author under the sponsorship of Regional Dialogue in 2017 through 2020 and follow-up programs conducted by TSUL faculty. *See supra* note 11 and accompanying text.

45. Conversation with Acting Associate Professors and teacher trainers Kamola Alieva and Botirjon Kosimov, March 16, 2023 (notes on file with the author).

46. *See* Ismatov, *supra* note 15, at 10-11. On April 20, 2020, President Shavkat Mirziyoyev of the Republic of Uzbekistan issued a decree titled "On Additional Measures to Radically Improve Legal Education and Science in the Republic of Uzbekistan." Implementation of the decree has, among other effects, increased the pace of reforms already underway at TSUL.

47. *See id.* at 13-14. When a visiting professor from the U.S. asked how many pages of reading would be reasonable to assign first-year students before class, a teacher discouraged the professor from assigning pre-class readings, saying that the students had not been prepared to be "independent learners." Informal "hallway" conversation with a teacher, January 2023 (notes on file with the author).

always provide feedback on it.[48] Some seminar teachers adhere to the traditional approach of devoting class time exclusively to drilling students on their recall of lecture content, but others promote cognitive engagement by students, and thus formative assessment, through a range of sophisticated active learning techniques that include in-class oral feedback on student demonstrations.[49]

Although midterms[50] and final exams at TSUL are summative assessments,[51] they provide opportunity for formative assessment because students receive feedback from their seminar teachers, who are responsible for grading the midterm and the final exam in a course. Individual academic departments prescribe the format of the midterm and the type and extent of feedback seminar teachers provide.[52] The format of final exams, which are administered on campus on a digital platform, is standardized university-wide. For a final exam, the teacher is required to post on TSUL's digital platform a prescribed number of comments on the student's submission alongside the student's exam score.[53] Although these comments vary in specificity and quality,[54] for students who are motivated to engage with feedback posted with their grades, this feedback provides opportunity for formative assessment.

In the United States, the term "formative assessment" entered the vocabulary of law teaching around 2015, when the ABA adopted Standard 314 requiring a law school to "utilize both formative and summative assessment methods in its curriculum to measure and improve student learning and provide meaningful feedback to students."[55] Both Standard 314 and its official Interpretation lump formative and summative assessment together as methods for measuring student achievement.[56] Thus, even though Standard 314 refers to the obligation to

48.   Participants' oral responses to questions by author during 2019 faculty development workshop (notes on file with the author).

49.   Author's personal observations of seminar teachers in their classes during academic visit at TSUL in spring 2019 (notes on file with the author).

50.   At TSUL, a midterm assessment is called a "control," because it is administered under controlled conditions.

51.   Brookhart, *Summative*, *supra* note 22, at 56 ("[C]lassroom tests that contribute to the final grade are by definition summative.").

52.   Conversation with senior member of TSUL's administration, March 24, 2023 (notes on file with the author).

53.   *Id.*

54.   *Id.*

55.   Standards and Rules of Procedure for Approval of Law schools, Standard 314, at 26 (Am. Bar Ass'n 2022-2023) (https://www.americanbar.org/content/dam/aba/administrative/ legal_education_and_admissions_to_the_bar/standards/2022-2023/22-23-standard-ch3.pdf ("Assessment of Student Learning").

56.   *See id.* at 26 ("Formative assessment methods are measurements at different points during a particular course or at different points over the span of a student's education that provide meaningful feedback to improve student learning. Summative assessment methods are measurements at the culmination of a particular course or at the culmination of any part of a student's legal education that measure the degree of student learning.").

"improve student learning and provide meaningful feedback," its characterization of formative assessment methods as measurement justifies to some extent a misperception on the part of some law teachers that formative assessment is not integral to instruction but instead yet another unwelcome grading obligation.[57]

Nonetheless, in U.S. law schools, formative assessment is part of instruction in both traditional large-class and experiential settings. Teachers of traditional large law classes incorporate formative assessment into their teaching, as the modified Socratic method that is characteristic of U.S. law teaching relies on formative assessment.[58] When the teacher of a large law school class questions a student, requiring her to apply material she prepared for class to hypothetical situations, and the teacher gives verbal or nonverbal feedback on the student's answers, the student being questioned and other students in the class reflect on the answers and the teacher's feedback to assess their own understanding.[59] Moreover, the interaction between the teacher and the student builds learning in real time, as the cognitive engagement inherent in the question and answer process puts students in the class in a position to construct new knowledge on the foundation of what they already know.[60] Clinical legal education is built on complex formative assessment: Students consistently use reflective practice to leverage teacher feedback on their performance to consolidate new knowledge in real time and make decisions on the next steps they need to take.[61] Similarly,

57.   *See, e.g.,* Field, *supra* note 5, at 366-67; Olympia Duhart, *The F Word: The Top Five Complaints (and Solutions) about Formative Assessment*, 67 J. Legal Educ. 531, 536–38 (2018); Susan Hanley Duncan, *They're Back! The New Accreditation Standards Coming to a Law School Near You—A 2018 Update, Guide to Compliance, and Dean's Role in Implementing*, 67 J. Legal Educ. 462, 464-66 (2018). An additional reason may be lack of familiarity with principles of pedagogy. Yorke, *supra* note 35, at 494 (stating that although "teachers in higher education reflect, as a matter of professional routine on their practice as educators in their subject discipline [and] assess their learners formatively, teachers may simply not recognise their activities as comprising formative assessment….").

58.   Field, *supra* note 5, at 385 ("Whenever you answer a student's question and have a conversation in which you evaluate if they understand your response, you have engaged in formative assessment. Each time you ask a student a question in class and give them input about their answer, you are providing formative feedback.").

59.   This is an application of the traditional Socratic method in U.S. legal education. *See, e.g.*, Symposium, *Upward! Higher: How a Law Faculty Stays Ahead of the Curve*, 51 Ind. L. Rev. 413, 449 (2018); Orin S. Kerr, *The Decline of the Socratic Method at Harvard*, 78 Neb. L. Rev. 113, 116–18 (1999). Of course, the process does not always work out in this ideal way, and there is a vast literature criticizing the Socratic method as it is used in U.S. law schools. *See, e.g.*, Jeannie Suk Gersen, *The Socratic Method in the Age of Trauma*, 130 Harv. L. Rev. 2320, 2324-29 (2017); Duncan Kennedy, *Legal Education and the Reproduction of Hierarchy*, 32 J. Legal Educ. 591 (1982); Kerr, *supra* note 58, at 118-22.

60.   For discussion of the theoretical underpinnings of in-lesson questioning as a vehicle for assessment as learning, see Margaret Heritage & John Heritage, *Teacher Questioning: The Epicenter of Assessment and Instruction*, 26 Applied Measurement Educ. 176, 177-79 (2013). *See also* Cheryl B. Preston, et al., *Teaching "Thinking like a Lawyer": Metacognition and Law Students*, 2014 BYU L. Rev. 1053, 1056 (2014).

61.   Reflective practice is formative assessment, because the student makes a demonstration, the teacher gives feedback, and the student reflects on the performance and feedback. *See* Donald A. Schön, Educating the Reflective Practitioner 163–66 (1987). On the relationship of

reflection on teacher feedback is central to student learning in simulation courses, including courses in legal writing.[62]

In U.S. law schools, most courses have a summative assessment—a final exam in a traditional large-class course, or a final paper, project, or simulation in a seminar or skills course. Even though a summative assessment measures student achievement at the end of a unit or a course, feedback on a final exam, project, or simulation may nonetheless be used formatively to support further learning.[63]

IV. CATs: Formative Assessments That Are Tools for Active Learning

The term "classroom assessment technique," with its acronym "CAT," was introduced by Thomas Angelo and K. Patricia Cross in their widely used book *Classroom Assessment Techniques: A Handbook for College Teachers*,[64] to describe formative assessment conducted within the college classroom.[65] Classroom assessment affords teachers the opportunity to observe students closely in the process of learning to "learn much about how students learn."[66] Moreover, the utility of a CAT extends beyond informing the teacher because, regardless whether a teacher is interested in learning about how students learn, a formative assessment tool of this kind engages students actively in learning by requiring them to interact with course content and with the teacher, and perhaps with other students as well.[67] Because of this potential to engage students cognitively—and because CATs are well defined, well tested by researchers and educators, and easy for a teacher to find and use—CATs can be adapted as active learning methods, even by teachers who have little training in pedagogy. Although CATs have been a popular resource for teachers for thirty-five years, similar tools can be used to promote student cognitive engagement.[68]

reflective practice and formative assessment in clinical legal education, see Jodi S. Balsam, et al., *Assessing Law Students as Reflective Practitioners*, 62 N.Y. L. Sch. L. Rev. 49 (2017).

62. *See, e.g.*, David I. C. Thomson, *What We Do: The Life and Work of the Legal Writing Professor*, 50 J.L. & Educ. 170, 200-04 (2021).

63. *See, e.g.*, Rogelio A. Lasso, *Is Our Students Learning? Using Assessments to Measure and Improve Law School Learning and Performance,* 15 Barry L. Rev. 73, 92 (2010); Gikandi et al., *supra* note 17, at 2337; Ramy, *supra* note 4, at 872. Some teachers at Boston College Law School bridge the gap between summative and formative assessment by requiring students to engage with written feedback by the teacher as a condition to discussing the grade on a final exam.

64. Angelo & Cross, *supra* note 4.

65. CATs are used in the law school classroom as well. *See e.g.*, Schwartz et al., *supra* note 4, at 169-73; Munro, *supra* note 4, at 240-44; Ramy, *supra* note 4, at 872-77.

66. Angelo & Cross, *supra* note 4, at 3.

67. *See, e.g.,* Lumpkin et al., *supra* note 41, at 123-25; Ramy, *supra* note 4, at 876-77; Trumbull & Lash, *supra* note 19, at 5-6; Deborah P. Valentine & Miriam Freeman, *Application Cards: A Classroom Technique for Teaching Social Work Practice*, 19 Social Work Educ. 155, 161 (2000).

68. Building on the foundation of Angelo and Cross, Elizabeth Barkley and Claire Howell Major developed tools that they assign to several different categories: LATs (learning assessment techniques), CoLTS (collaborative learning techniques) and SETS (student engagement techniques). Elizabeth F. Barkley & Claire Howell Major, Learning Assessment Tech-

CATs are particularly appropriate to build learning in large-class settings, because they require students to engage actively in learning without imposing unrealistic burdens on teachers.[69] Like other formative assessments, CATs require students to perform in some way and receive some sort of feedback.[70] A CAT is not graded,[71] and students may or may not perform individually or receive individual feedback on their performance.[72] With a very modest investment of research time in a library or online, a teacher can locate descriptions of CATs in addition to those described by Angelo and Cross, with detailed analyses of their pros and cons for different situations and explanations of how to use them.[73]

Thus, without investing inordinate time or effort, a motivated lecturer at TSUL could improve student engagement by employing an occasional CAT to allow students to assess their understanding of lecture content in real time. Similarly, a seminar teacher who still devotes seminars to drilling students on lecture content could employ a CAT to engage the students more cognitively with the material. A seminar teacher who already employs interactive teaching methods also could expand her formative assessment repertoire with CATs**.**

Although they may not be aware that they are using a CAT, law teachers in the United States routinely use at least one of them. Question and answer, the modified Socratic dialogue[74] that has defined the traditional law school classroom for more than a century, is a classroom assessment technique[75] that engages students cognitively in multiple ways during a class period.[76]

CATs other than question and answer may, however, be more effective techniques for generating cognitive engagement in the large law school classroom,

NIQUES: A HANDBOOK FOR COLLEGE FACULTY (2016) (LATs); ELIZABETH F. BARKLEY, CLAIRE HOWELL MAJOR & K. PAMELA CROSS, COLLABORATIVE LEARNING TECHNIQUES: A HANDBOOK FOR COLLEGE FACULTY (2d ed. 2014) (CoLTs); BARKLEY & MAJOR, *supra* note 3 (SETs). Barkley and Howell Major distinguish between CATs, LATs, and CoLTs on the one hand, because they are designed as assessment tools, and SETs, on the other, which are designed only for student engagement and not for assessment. BARKLEY & HOWELL MAJOR, *supra* note 3, at 141-42. All these techniques promote student engagement, however, so the distinction drawn by Barkley and Howell Major is not significant for the law teacher who wants to adopt any of these techniques to promote student engagement in remote or in-person learning.

69. Field, *supra* note 5, *passim,* for descriptions of many formative assessments that are suitable for large law school classes.

70. ANGELO & CROSS, *supra* note 4, at 6.

71. *Id.* at 5.

72. *See generally id.*

73. *See, e.g.*, Learning Experience Design, *Teaching Strategies,* MGH INST. OF HEALTH PROS., https://www.mghihp.edu/news-and-more/opinions/teaching-strategies (Oct 18, 2022).

74. For discussion of question and answer as formative assessment see notes 60-61 and accompanying text *supra*.

75. *See supra* note 61 and accompanying text.

76. *See supra* note 45 and accompanying text.

in both the United States[77] and Uzbekistan. These include polls, oral or written directed paraphrasing,[78] short in-class writing activities such as the Muddiest Point[79] or the Minute Paper,[80] and some forms of group work, such as Think-Pair-Share.[81] Although these CATs afford the teacher somewhat less opportunity to improvise than question and answer, they still do not pose unrealistic burdens on teachers of large law school classes. None of them requires a grade or individual feedback; all of them require cognitive engagement.

V. Adapting CATs to Remote Teaching

Although CATs were designed for the physical classroom, they can be adapted to engage students in remote learning in synchronous or asynchronous online courses, in both high-bandwidth and low-bandwidth contexts.[82] Law teachers in the United States generally assume that students have access to high-speed internet, and thus that it is appropriate to use virtual classroom platforms. That assumption is not always justified,[83] and there are additional drawbacks to relying exclusively on virtual classroom platforms. In Uzbekistan, lack of

77. For arguments in favor of integrating a variety of active learning techniques in the law school classroom, and numerous examples see, for example, Schwartz et al., *supra* note 4, at 17-18.

78. This CAT requires students "to paraphrase part of a lesson for a specific audience and purpose, using their own words." Angelo & Cross, *supra* note 4, at 232.

79. This CAT requires students to confront what they do not understand in a lesson, discussion, or reading assignment, by answering the question "What was the muddiest point in ___?" *See id.* at 154–58.

80. For this CAT, students respond to an open-ended question like "What was the most important thing you learned during this class?" or "What important question remains unanswered?" *Id*. at 148–53.

81. Think-Pair-Share is not in Angelo & Cross's book, but it has all the attributes of a CAT. This is a widely used technique first described by Frank Lyman of University of Maryland in 1981. Kristine Prahl, *Best Practices for the Think-Pair-Share Active-Learning Technique*, 79 American Biology Teacher 3, 3 (2017); Frank Lyman, *The Responsive Classroom Discussion: The Inclusion of All Students*, *in* Mainstreaming Digest 109–113 (Audrey Springs Anderson ed., 1981. In a Think-Pair-Share exercise, students first work on an activity individually. Then they work on the activity in pairs. Finally, the discussion moves to the large group. *See id.* This technique is especially usable to engage students in remote learning, with synchronous or asynchronous tools.

82. Daniel Stanford, *Videoconferencing Alternatives: How Low-Bandwidth Teaching Will Save Us All,* IDDBLOG (March 16, 2020) https://www.iddblog.org/videoconferencing-alternatives-how-low-bandwidth-teaching-will-save-us-all/(arguing that lower bandwidth alternatives to the virtual classroom are effective teaching tools that foster digital equity and accessibility in light of technical, economic, and other factors).

83. Many students in the U.S. do not have reliable off-campus access to high-speed internet. Cecilia Kang, *Parking Lots Have Become a Digital Lifeline*, N.Y. Times (May 20, 2020). https://www.nytimes.com/2020/05/05/technology/parking-lots-wifi-coronavirus.html. Although there are no generally available statistics on the percentage of U.S. law students without off-campus access to high-speed internet, in 2019 twenty seven percent of American adults did not have reliable access to broadband internet at home. Monica Anderson, *Mobile Technology and Home Broadband 2019*, Pew Rsch. Ctr. (June 13, 2019), https://www.pewresearch.org/internet/2019/06/13/mobile-technology-and-home-broadband-2019/.

uniform access to high-speed internet makes using virtual classroom platforms impractical for most teachers and students outside the largest cities.[84] Thus, teachers at TSUL use primarily lower-bandwidth options to engage students in the Regions in remote learning.

In the virtual classroom preferred by many U.S. law teachers, limitations on interaction between teacher and student tend to make question and answer, the default CAT, less effective than in the physical classroom. Virtual classrooms do not support the same type of nonverbal communication that many law teachers rely on when they question students in the physical classroom;[85] for example, a teacher's gestures may be difficult for a student to perceive onscreen. Additional drawbacks to the virtual classroom include the following:

1. The teacher cannot walk around the room to emphasize a point.

2. Even with a very large monitor, a teacher is unlikely to be able to see all the students in a large law school class at any given moment, and thus the teacher may be unable to perceive student reactions or independently identify students who are poised to make contributions or students who are "checked out."

3. Students and teachers may be in different time zones, so scheduling a virtual class at a time that is convenient for all concerned may be a challenge.

4. The slight delays that may occur in internet transmission diminish the momentum of classroom interaction.

5. The internet connection of the teacher or a student may be disrupted, or a student may not have access to high-speed internet at all.

6. Although many virtual classroom platforms can be used on a smartphone, a student who does not have access to a computer must strain to see and interact with the teacher, other students, and projected content on the small screen.

These and other drawbacks of virtual classroom platforms counsel U.S. law teachers to branch out beyond question and answer on virtual classroom platforms to explore CATs other than question and answer and lower-bandwidth options, both synchronous and asynchronous, for using CATs.[86]

84. Teachers report that even in Tashkent City, internet service is frequently disrupted in bad weather conditions or when usage is high. During the online TSUL workshops in May and June 2020, internet instability required a number of participants to turn off their video for the entire workshop. One participant's internet cut out completely.

85. The remote environment presents other opportunities for nonverbal communication to establish teacher immediacy, beyond those available in the physical classroom. *See, e.g.,* Marcia D. Dixson et al., *Nonverbal Immediacy Behaviors and Online Student Engagement: Bringing Past Instructional Research into the Present Virtual Classroom*, 66 COMM. EDUC. 37, 48 (2017) ("Because instructors can create immediacy with little effort in the traditional classroom, they may not see the parallel need in online classrooms.").

86. Stanford, *supra* note 82.

Among reasons the virtual classroom is an attractive venue for CATs, even with all the drawbacks, is that a number of CATs transfer there almost seamlessly to engage students in a manner very similar to the physical classroom. For example, in the virtual classroom, a teacher can poll the whole class or use a written CAT such as a Minute Paper—just as the teacher can use these CATs to engage students in the physical classroom. Online, a poll works just as it does in the physical classroom. The Minute Paper can be used in remote teaching with only minor adjustments. As in the physical classroom, a student in a virtual classroom may demonstrate understanding by reading the Minute Paper aloud to the full class, or students may discuss one another's work in breakout rooms, followed by a return to the full classroom for general feedback by the teacher. Alternatively, as in a physical class, the teacher may have the students submit the one-minute papers they wrote during class and then respond to them individually or as a group online or during the next virtual class. Collaborative CATs like Think-Pair-Share[87] may work better in virtual breakout rooms than in the physical classroom for a number of reasons, including that virtual classroom platforms divide students into groups more efficiently.

Adapting CATs to lower-bandwidth platforms fosters student engagement in remote learning when using a virtual classroom is not desirable or not feasible. For example, although it might be feasible for a student to attend a virtual class using a smartphone, the small screen makes a smartphone less effective than other devices for this purpose, especially when the teacher or student employs screen sharing. In a primarily asynchronous course, a lower-bandwidth synchronous CAT, for example, interactive tools like a live online poll or live chat (in text or video), may be hosted directly on a learning management system (LMS) to increase student engagement.[88] In both primarily synchronous and asynchronous courses, a teacher may administer the Minute Paper CAT asynchronously by assigning it on the LMS instead of in a virtual classroom. After students upload their work, the teacher, still within the LMS, can click through student submissions to take the temperature of the class to assess student understanding. The teacher has many options for giving feedback within the LMS, including giving audio, video, or written individual comments or providing a written, audio, or video response to the whole class. The teacher might also give feedback in the form of an annotated sample answer or rubric posted on the LMS.[89]

87.   See Lyman, *supra* note 81 for a description of Think-Pair-Share.

88.   *See* Derek Malone, *Using Synchronous Video Within a Learning Management System for Library and Information Literacy Instruction*, 11 Public Services Quarterly 208, 211 (2015). For a pre-LMS use of CATs in asynchronous teaching, see Tom Henderson, *Classroom Assessment Techniques in Asynchronous Learning Networks*, The Technology Source Archives at University of North Carolina, September/October 2001 http://technologysource.org/article/classroom_assessment_techniques_in_asynchronous_learning_networks/?utm_medium=email&utm_source=transaction (last visited June 18, 2023).

89.   *See* Field, *supra* note 5, at 423; Carol Springer Sargent & Andrea A. Curcio, *Empirical Evidence that Formative Assessments Improve Final Exams*, 61 J. Legal Educ. 379, 395 (2012).

Thus, in a variety of CATs[90] administered asynchronously, the teacher may require students to demonstrate understanding through written, audio, or video responses, and again give feedback within the LMS. Collaborative CATs like Think-Pair-Share may be conducted asynchronously via discussion boards within the LMS. Questions (and answers) inserted into a prerecorded video hosted on an LMS is another example of an asynchronous CAT.[91]

When bandwidth is severely limited, as it is in many places both within and outside the United States, a social media platform may supplement or replace an LMS.[92] Teachers at TSUL use Telegram, the most popular social media platform in Uzbekistan,[93] intensively for remote instruction. Even before the pandemic, teachers used Telegram groups to post course materials and communicate with students. In surveys conducted at the end of the first day of both two-day faculty workshops on remote learning that I co-led in May and June 2020, one hundred percent of teachers reported that they used Telegram to engage with their students.[94] More than sixty percent said that Telegram was their principal means to distribute course materials to students, even though both TSUL and the Ministry of Higher Education supported a learning management systems and encouraged teachers to use it.[95]

During the spring of 2020, Telegram's deep penetration throughout Uzbekistan, combined with the ingenuity of TSUL faculty in repurposing a social media platform as an instructional tool, made it possible for TSUL to reach

90. This essay includes in the category of "CAT" any activity that would meet the criteria for a CAT if it were administered in a physical classroom.

91. Panopto is an example of a software platform that allows a teacher to add questions, answers, and explanations to a video. *See, e.g.*, *How to Add a Quiz to a Video,* PANOPTO, https://support.panopto.com/s/article/How-to-Add-a-Quiz-to-a-Video (March 31, 2023).

92. *See, e.g.,* Christine Greenhow & Sarah Galvin, *Teaching with Social Media: Evidence-Based Strategies for Making Remote Higher Education Less Remote*, 121 INFORMATION AND LEARNING SCIENCES 513 (2020). *But see* Berkeley Center for Teaching and Learning, *Teaching with Social Media* (May 2017), https://teaching.berkeley.edu/teaching-social-media (providing a statement on the guidelines for the use of social media as an instructional tool, cautioning instructors about privacy and security issues).

93. Murodjon Tuhtasinov, *How Uzbeks Learned to Love (and Live on) the Telegram Messenger App,* https://globalvoices.org/2019/04/12/how-uzbeks-learned-to-love-and-live-on-the-telegram-messenger-app/ (April 12, 2019 12:49 GMT).

94. Notes on file with the author.

95. During the emergency remote learning phase in the spring of 2020, teachers could use the Moodle LMS which was supported by TSUL and by the Ministry of Higher Education. In September 2020, TSUL launched a proprietary LMS, distant.tsul.uz. TSUL's current LMS is digital.tsul.uz.

a high percentage of its student body with remote instruction.[96] During the remote workshops on remote teaching I conducted for TSUL faculty in May and June 2020, a TSUL teacher presented on how he used Telegram to provide synchronous learning experiences when most other faculty were teaching asynchronously.[97] During the early part of the pandemic, this teacher used Telegram for individual video and audio chat with students about course content, for polls, and for question and answer, posing questions via video to the students in the class, who responded with text messages. This intensive use of Telegram during the early part of the COVID-19 pandemic was sufficient to motivate his students to engage cognitively in remote learning.[98]

Teachers who used Telegram as their principal tool for engaging students in remote learning recognized that learning management systems are specifically designed as instructional platforms, and that social media platforms are not— and in addition pose privacy and security issues.[99] Nonetheless, these teachers concluded that Telegram's accessibility on smartphones throughout Uzbekistan, combined with the high level of user familiarity with the social media platform, made it an appropriate tool to engage students in learning during the period required for learning management systems to gain greater acceptance among teachers and students.[100]

96. TSUL faculty are not alone in using social media platforms effectively for low-bandwidth remote teaching. For example, Professor Abd Karim Alias of Universiti Sains Malaysia has a YouTube channel with detailed lessons on how to use WhatsApp and other social media platforms as interactive remote learning tools. *See e.g.*, Abd Karim Alias, *Join Me in My Adventure and Life Mission as a Global Educator*, YOUTUBE (Oct. 19, 2019), https://www.youtube.com/channel/UCD1hY6RFpA4n8nXRsOkzjyg.

97. Presentations on May 12 and June 2, 2020, by TSUL Senior Lecturer (now Acting Associate Professor) Botirjon Kosimov (notes on file with the author). Professor Kosimov and his colleague, Acting Associate Professor Kamola Alieva, are leaders among TSUL faculty on teaching methods reform. They are among a growing group of lecturers who consistently use interactive teaching methods during their lectures.

98. Presentations by Botirjon Kosimov, May 12 and June 2, 2020 (notes on file with the author). Although TSUL declared an end to COVID-19 emergency remote teaching in the fall of 2020, the potential for other occasions calling for remote teaching counsels TSUL faculty to hone their remote teaching skills. For example, a shortage of classroom space required partial remote teaching of courses in TSUL's master's program during the 2023 spring semester. Extreme cold weather in January 2023 prevented many students from returning to Tashkent to take their fall semester exams after their holiday break. If the weather emergency had occurred during the semester, teachers might have been required to teach remotely. And unfortunately, another global pandemic is not out of the question. In these situations, teachers who are familiar with CATs would have a ready resource for engaging students in remote learning.

99. Comments by participants in the May and June 2020 workshops on remote teaching (notes on file with the author); Berkeley Center for Teaching and Learning, *supra* note 92.

100. Notwithstanding TSUL's support of LMS use, conversations with teachers in March 2023 indicate that many teachers continue to prefer Telegram to an LMS for communicating with students and distributing course materials.

VI. Conclusion

Figuring out ways to engage students in remote learning may be a challenge for teachers who are accustomed to teaching in the physical classroom, but experimenting with CATs in a variety of remote contexts is a reasonable starting point. CATs are ready-to-use[101] formative assessments that engage students by requiring them to interact with the teacher and course content. A teacher who takes the plunge and tries out a CAT to engage students in remote learning will likely discover that the benefits of using CATs outweigh the costs of implementing them.

Although many CATs are at home in the high-bandwidth virtual classroom, CATs can also be adapted to engage students in lower-bandwidth contexts. The experience of teachers at TSUL shows that engaging students in remote learning does not require teachers to try to replicate the physical classroom on a virtual classroom platform. Employing CATs in lower-bandwidth contexts successfully engages students, including those who do not have access to high-speed internet or are limited to working on a smartphone. In some circumstances, even a social media platform like Telegram is an appropriate vehicle for a CAT.

Active learning is a key requisite of cognitive engagement, and CATs are readily available tools to foster interaction in both synchronous and asynchronous learning in both high-bandwidth and low-bandwidth remote environments. Although the transition to remote teaching forced by the COVID-19 pandemic required law teachers all over the world to leave the comfort zone of the physical classroom, it has also presented the opportunity to rethink, at least to some extent, methods for teaching.[102] This can only be of benefit to us, as teachers, and to our students.

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101. Barkley and Howell Major characterize CATs, LATs, CoLTs, and SETs as akin to "well tested recipes . . . that both new and experienced teachers can follow . . . and be reasonably confident they will get good results." BARKLEY & MAJOR, *supra* note 3, at 141.

102. Comment of presenter at Boston College Law faculty workshop on using online discussion boards, July 9, 2020 (notes on file with the author.)