

Critical Thinking Inventories (CTIs)

Frequently Asked Questions

Ideas to Action

What are the critical thinking *Inventories* (CTIs)?

The Critical Thinking Inventories (CTIs) are short, Likert-item instruments designed to help assess the learning environment as it relates to critical thinking at the course level. There are two separate instruments:

1. **Learning Critical Thinking Inventory (LCTI)** to be completed by students
 - This instrument assesses a student's perception of faculty's facilitation of their learning of critical thinking in a specific course learning environment.
2. **Teaching Critical Thinking Inventory (TCTI)** to be completed by faculty
 - This instrument assesses a faculty member's perception of his/her teaching of critical thinking within a specific course learning environment.

Why were the CTIs developed?

Despite a nationwide emphasis on critical thinking in higher education by both higher education institutions and potential employers of college graduates for the last three decades, there are no standardized instruments available to assess actual or perceived abilities of faculty to develop students' critical thinking skills (van Zyl, Bays, and Gilchrist, 2013). The CTIs were developed here at UofL to address this gap in the field and to support our institution's self-identified goal of fostering our students' critical thinking skills.

Have the CTIs been validated?

Yes. Appropriate statistical analyses conducted at UofL showed the instruments to be both reliable and valid. You can read more about the development and validation of the CTIs in the following peer-reviewed article:

Van Zyl, M.A., Bays, C.L., & Gilchrist, C. (2013). Assessing teaching critical thinking with validated critical thinking inventories: The learning critical thinking inventory (LCTI) and the teaching critical thinking inventory (TCTI). *Inquiry: Critical Thinking Across The Discipline*, 28(3), 40-50

How long does it take for an individual to complete the inventories?

Both the LCTI and TCTI contain 11 Likert items and should each take no more than 5 minutes to complete.

How do I administer the LCTI to students?

The LCTI student instrument, upon instructor consent, can be placed in any Blackboard course shell in the "Assignments" section. The instructor can control visibility and access of the instrument via standard Blackboard control functions. All student responses from the LCTI remain anonymous.

Do I have to grade the LCTI?

No. Responses are tabulated automatically in Blackboard. Instructors may wish to view aggregate student responses but do not have to grade or manage the data in any way.

What happens to my LCTI student data?

- The LCTI results are compiled in your Blackboard course shell and remain on Blackboard. Both you and the i2a Team (with your consent) can assess the anonymous data.
- The i2a team aggregates the anonymous data as part of our reporting to SACS about the integration of Ideas to Action and our assessment of the critical thinking instructional environment at UofL.

Should I give my students extra credit for completing the LCTI?

This your decision as the course instructor. In order to increase response rates, several instructors have given their students 1-2 extra credit points as incentives for students to complete the LCTI, whereas others have made completion of the instrument a required course assignment

How and why do I take the other instrument—the TCTI ---as the course instructor?

The TCTI is emailed to participating instructors. Instructors print out the inventory, complete it, and return it to IL Barrow either electronically or by campus mail. The results from the TCTI will be used in comparison to student responses gathered from the LCTI at the end of the semester. These data will help instructors identify areas of alignment and gaps in their course learning environment. Instructors are encouraged to use the results of the TCTI and LCTI to make adjustments to their course prior to the next offering. The TCTI can also serve as a valuable instrument for providing formative feedback prior to the delivery of the course. Instructors can use the TCTI to think explicitly through various aspects of their course as it relates to integrating critical thinking skill building.

Is this busywork for me and my students?

No. Many instructors have found that the LCTI gives students a checklist for thinking through how certain aspects of critical thinking are facilitated or fostered through teaching behaviors, course assessments, and classroom activities. When used as formative feedback during the semester, student LCTI results can help instructors adjust course and classroom activities to enhance critical thinking skills of students. When compared to your student LCTI results, your TCTI results can help align what you think you're teaching with your students' perceptions of your instruction.

In the end, what's in it for me?

The LCTI and TCTI are validated instruments that provide you with a quick, anonymous way to self-assess the critical thinking characteristics of your course from your own perspective and the perspective of your students.

How do I introduce expectations for the LCTI to students in my syllabus?

Here is some suggested language you could adopt or adapt regarding the LCTI: "Students in this course are given the opportunity to complete an anonymous survey, the Learning Critical Thinking Inventory (LCTI), to report on their learning of critical thinking skill sets. The LCTI is posted under the 'Assignments' section in Blackboard. Instructions for completing the LCTI are posted on Blackboard, as well. The Inventory should take about 5 minutes to complete. Your responses are anonymous and will be available in aggregate form to your instructor. The results from this inventory may be used by your instructor to help inform his/her teaching of this course **and** by the university in their efforts to assess and improve the undergraduate educational environment."

Are there instructions I can use when administering the LCTI on Blackboard?

Here is some suggested language you could adopt or adapt as instructions for the LCTI on Blackboard: "Please take three to five minutes to complete the anonymous Critical Thinking Inventory for Learners (LCTI). This instrument was designed by UofL faculty and staff to measure your perception of how critical thinking is being integrated in your learning and classroom experience as they relate to this course. **This is not an instructor evaluation.** Your individual responses will be kept anonymous and will be reported in aggregated form. The results from this inventory may be used by your instructor to help inform his/her teaching of this course **and** by the university in their efforts to assess and improve the undergraduate educational environment. Any questions regarding this inventory can be directed to IL Barrow (il.barrow@louisville.edu), i2a Specialist for Assessment."

Where can I get more information on administering and using the inventories?

- Please contact:
 - IL Barrow, i2a Specialist for Assessment
 - il.barrow@louisville.edu
 - Edna Ross, i2a Critical Thinking Specialist
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