



# **The Annual Report for Applied Critical Thinking at RIT**

**For**

**2020-2021**

**Dr. Jennifer L. Schneider, CIH**

**Eugene H. Fram Chair in Applied Critical Thinking**

**2021**

## Table of Contents

<b>Executive Summary .....</b>	<b>2</b>
<b>Purpose and Guiding Aims .....</b>	<b>3</b>
<b>Initiative Framing and Rationale .....</b>	<b>3</b>
<b>2020-21 Management &amp; Structure of the Initiative: .....</b>	<b>5</b>
<b>Fram Advisory Board (FAB) .....</b>	<b>5</b>
<b>Fram External Advisory Board (FEAB) .....</b>	<b>6</b>
<b>International Fram Advisory Board (IFAB) .....</b>	<b>7</b>
<b>General Education and Program Student Learning Outcomes.....</b>	<b>8</b>
<b>Applied Critical Thinking Strategic Action Plan (2018-21) .....</b>	<b>8</b>
<b>Highlights of Accomplishments in 2020-2021 .....</b>	<b>9</b>
<b>Events.....</b>	<b>9</b>
<b>Integration with RIT's Major Goals .....</b>	<b>19</b>
<b>Challenges to ACT Integration .....</b>	<b>20</b>
<b>ACT Recommendations .....</b>	<b>20</b>
<b>Conclusion.....</b>	<b>21</b>
<b>Appendix 1: History .....</b>	<b>22</b>
<b>Appendix 2: Learning Outcomes .....</b>	<b>25</b>
<b>Appendix 2: Learning Outcomes .....</b>	<b>26</b>

## Executive Summary

In 2020-21, the maturation and integration of the Applied Critical Thinking initiative at the Rochester Institute of Technology (ACT@RIT) continued under the leadership of Dr. Jennifer L. Schneider. ACT@RIT is framed, functional and ready to meet greater challenges. We have entered a new phase of ACT efforts on the national stage and are also poised to deepen our efforts to fulfill university goals.

We have increased on-campus participation 700% over the last 5 years. This year, we hosted 18 cosponsored Fram events, and an Institute-wide spring speaker event that was successful. Nearly 1000 attended Fram events this year despite the ongoing challenge of the COVID-19 Pandemic.

During this year, there were 1521 scholarly artifacts. Of those artifacts, faculty designated 251 (16%) artifacts as related to ACT.

Future recommendations: The opportunity to leverage our ACT@RIT initiative to advance RIT on many fronts is apparent. The academic year 2021-2022 will be focused on support of student success across our campuses, faculty teaching and learning of critical thinking, particularly as we develop and refine modalities of teaching, focusing on:

- Framing of systems to expand the ACT initiative to our graduate programming and support the growth of the ACT skillset with our graduate students as our next generation of teachers, researchers and leaders.
- Creating and piloting the MIND Field experience as part of the Fram Badge to build additional experiential opportunities to practice ACT.
- Continuing to develop and export the RIT ACT success to off campus partners and thereby, grow the ACT impact beyond RIT.
- Increasing connections between traditional and unique educational experiences across RIT including ACT as the key lynchpin and pivot point to support other major RIT initiatives, for example, KEEN, growth mindset, Grand Challenges, Tech, Art & Design, etc.
- Use of data to inform holistic continuous improvement. Through the ACT perception survey and the SLO results, the Fram Office will work with the Assessment Office to refine improvement plans.
- Engage in broader grant writing and external funding opportunities through foundations, governmental funders and development.

- Revisit the Fram Strategic Plan, and evaluate long term needs and structure of the Fram ACT initiatives.

## Purpose and Guiding Aims

The purpose of this report is to summarize the ACT efforts and accomplishments for the 2020-21 academic year, list recommendations for future efforts, and define benchmarks for the ongoing evaluation of our progress.

Establishing the reputation of RIT as a national leader in Applied Critical Thinking relies upon a university-wide commitment coupled with a notable external contribution to the development of applied critical thinking. To ensure success, the university is (1) continuously improving a process grounded in performance measures and student achievement assessment, (2) continually seeking and sharing best practices and opportunities with internal and external partners, (3) integrating high-quality ACT learning opportunities across the student experience, and (4) facilitating excellence in the development of Applied Critical Thinking in our students and our world.

## Initiative Framing and Rationale

Our global society has high expectations. Decision makers must think critically to assess and strategize within complex, interconnected systems; continually adapt to rapidly evolving technological, aesthetic, and social environments; and manifest new ideas, both individually and collectively.

In response, RIT created the **Applied Critical Thinking (ACT@RIT)** initiative to foster the application of critical thinking – *the exercising of effective thinking in any context*. **Application of critical thinking connects this performance chain of knowing-doing-creating**. The initiative is guided by several working definitions, including:

- **RIT University Education Goal and Essential Program Outcome: Critical Thinking** refers to those processes required to understand and evaluate complex claims of various sorts. It involves the evaluation of information, evidence, arguments, and theories, and the contexts in which these are encountered. It entails the questioning of different and competing perspectives, and challenging the (sometimes hidden) assumptions and inferences that determine what will count as evidence or argument. Critical thinking is learning to think in a disciplined and evaluative manner, to analyze and interpret the processes by which various claims are made and reliable conclusions are reached ([RIT Essential Outcomes](#)).

- **Critical Thinking Across the Curriculum:** Critical thinking is “the ability to identify, analyze, construct, and evaluate evidence and arguments in a deliberate and rigorous way” or “The growth of educated thinking”. (C. Sheffield, Critical Thinking Across the Curriculum Report, 2014).
- **Fram Advisory Board:** “At RIT, ACT is an active form of engagement, drawing from our diverse domains and deep expertise to address the questions and challenges that we face. As the uncertainties and the magnitude of impacts increase in our complex world, we must now consider a wider range of possible outcomes. To do this well, we need to employ thinking that draws from multiple, diverse environments to more fully inform our evaluation and resultant strategies.” (Fram Advisory Board. [Fram Award at Imagine](#)).

RIT systematically integrates critical thinking across the student experience to develop critical thinking in diverse settings. ACT@RIT is cultivated through learning expectations of *defining* the quality of information, *analyzing* and *developing* a point of view, *solving* of complex problems, and *creation*. These elements are embedded into our curriculum and practiced intentionally in ever-broadening and diverse environments of experiential learning. RIT’s renowned experiential learning program, the prolific use of projects and teams, community service programs, international experiences and programs, entrepreneurship and research opportunities, and participation in student groups in and out of the classroom are all valuable to the initiative. The ACT skills students develop transfer into every other area of life and are the impetus for growth, professionalism, and creative expression, empowering our alumni to realize their unique contribution to our world through whatever path they choose or create. The visual map of the effort is below:

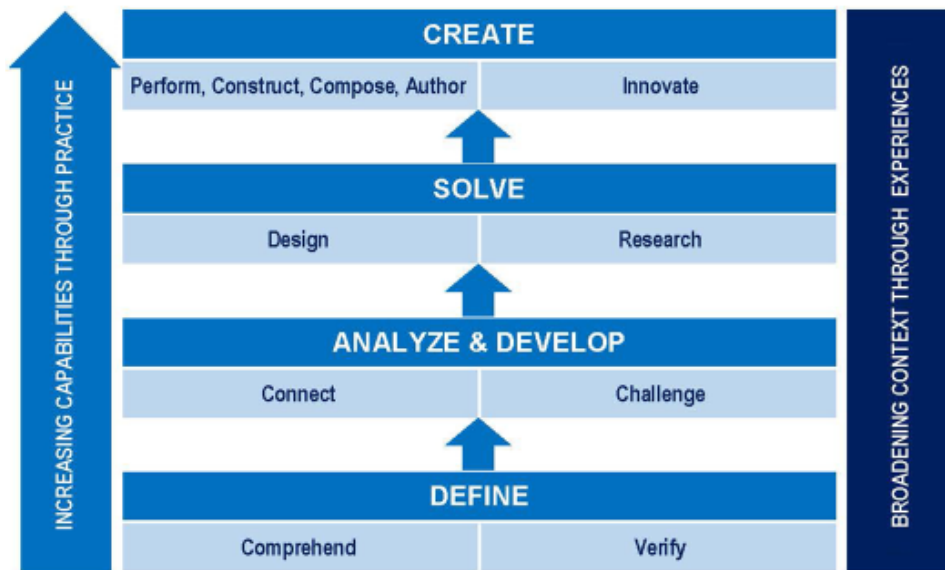


Figure 1: ACT Skill Development Map

## 2020-21 Management & Structure of the Initiative:

The ACT initiative is led and the report is compiled by the Eugene H. Fram Chair in Applied Critical Thinking (Fram Chair), Dr. Jennifer L. Schneider, CIH. In addition to her role as the Fram Chair, Dr. Schneider is also a professor in Civil Engineering Technology, Environmental Management and Safety within the College of Engineering Technology at RIT, and leads the cross-disciplinary Collaboratory for Resiliency & Recovery at RIT. She has expertise in HAZMAT, risk-based decision-making and global resilience. The internal Fram Advisory Board (FAB) of Rochester faculty and staff, the Fram alumni-driven External Advisory Board (FEAB), and the International Fram Advisory Board (IFAB) all advise Dr. Schneider. Temporary administrative support is provided by Linda Lagree, through Datrose, RIT's temporary staffing agency. Linda's temporary assignment ended June 30, 2021, and a search is being conducted for a part-time staff assistant to fill the vacancy. Further information on the history of the Fram/ACT initiative can be found in *Appendix 1*.

## Fram Advisory Board (FAB)

Most members from Fram Advisory Board chose to remain on the board for 2020-21 (Table 1). This board has representation from the colleges and degree granting units as well as Student Affairs. The

duties of the board members are to guide Rochester-based ACT efforts and advocate for/be a conduit for ACT@RIT.

**Table 1: 2020-21 Fram Advisory Board**

- **Heath Boice-Pardee**  
Student Affairs
- **Corey Crane**  
College of Health Sciences & Technology
- **Mike Eastman**  
College of Engineering Technology (Associate Dean Representative)
- **Christine Keiner**  
College of Liberal Arts
- **David Long**  
College of Art & Design
- **Rachel Mazique**  
National Technical Institute for the Deaf
- **Sylvia Perez-Hardy**  
Golisano College of Computing & Information Sciences
- **Patricia Poteat**  
College of Engineering Technology
- **David Ross, College of Science**  
College of Science
- **Brian Thorn**  
Kate Gleason College of Engineering
- **John Ward**  
Saunders College of Business

**Fram External Advisory Board (FEAB)**

The Fram External Advisory Board is selected from RIT's notable alumni (Table 2). These board members bring an external point of view and guidance to the initiative. The current members serving 2- or 3-year renewable terms are:

**Table 2: 2020-21 Fram External Advisory Board**

- **Peter Bealo** (College of Art and Design [former College of Graphic Arts & Photography], Photographic Science, BS 1980)

Consultant in Data Analysis, Public Education Policy, Marketing & Project Management

- **Joseph Boyd** (COS, College of Science, Chemistry, BS 2004)  
CEO, Financial Advisor, Boyd Capital
- **Jason Edwards** (Saunders College of Business, MBA 2003)  
Vice President of Category Leadership - Total US Grocery Pinnacle Foods Group LLC
- **Robert Jacoby** (Civil Engineering Technology, Environmental Management, BS 1977)  
Consultant to the Energy Industry  
Former Global Manager at Royal Dutch Shell
- **Ellen Moser** (Computer Technology, Software Science, BS 1981)  
Treasurer, East County Fellowship  
Former Executive Director, Kaiser Permanente
- **Chris Petescia** (College of Art and Design, Graphic Design, BFA 2005)  
Owner, Kessel Run Ventures
- **William Standwill** (College of Graphic Arts & Photography, Printing Management & Sciences, Graphic Communications, BS 1988)  
Head of Commercial, Sherlock Biosciences
- **Krista Vardabash** (Saunders College of Business, EMBA 2012)  
Sr. Strategist, KV Strategies
- **Amanda J. Weissman** (College of Engineering, Electrical Engineering; College of Science Materials Science, BS/MS 2009)  
Lead Systems Engineer, Lockheed Martin

## International Fram Advisory Board (IFAB)

The International Fram Advisory Board represents each of RIT's international campuses (Table 3).

These board members bring an international point of view and guidance to the initiative. The current members serving 2- or 3-year renewable terms are:

### **Table 3: 2020-21 International Fram Advisory Board**

- **Albina Balidemaj** -- Rochester Institute of Technology – Kosovo
- **Francis Brassard** -- Rochester Institute of Technology – Croatia
- **Jamaal Pitt** -- Rochester Institute of Technology – Dubai
- **Jude Okpala** – Rochester Institute of Technology – China/Kosovo (will formally join the IFAB in 2021)



## General Education and Program Student Learning Outcomes

The teaching and assessment of ACT@RIT is managed through a comprehensive general education and program strategy founded on student learning and program goals. General education outcomes have been codified by the governing committee, and adopted accordingly. The abbreviated outcomes are listed in the professional practice column of the chart below because these inform the building of a competent, professional, and capable critical thinker. The full description of ACT student learning outcomes is noted in *Appendix 2*. RIT measures student critical thinking at several opportunities along the student experience as follows:

- University level Essential Program Outcomes assessed in designated general education courses
- Program learning outcomes
- Cooperative employer feedback
- National Survey of Student Engagement
- RIT's alumni survey broad in scope

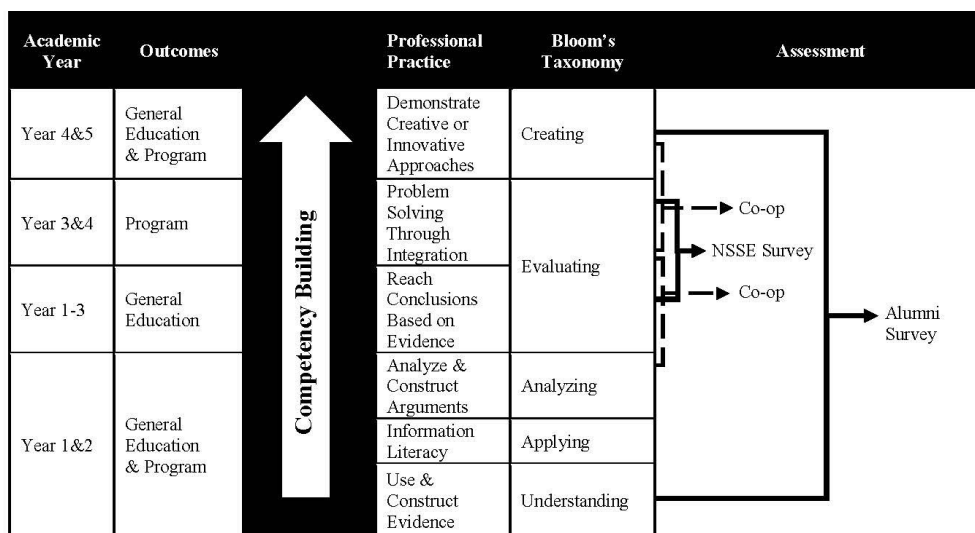


Figure 2: ACT Outcomes Map

## Applied Critical Thinking Strategic Action Plan (2018-21)

The Applied Critical Thinking (ACT) Strategic Action Plan (SAP) for 2018-21 is meant to guide the ACT initiative and reflect ACT related goals of the Rochester Institute of Technology (RIT) Strategic Plan for 2025. Due to the emergence of the COVID-19 pandemic in early spring 2020, the initiative had to adjust plans and programming to meet the “new normal”. Nevertheless, the gains were realized.

The ACT effort directly supports university goals and the growth of the university programming, reputation, and is also crucial to the blending and growth of the unique capabilities of RIT. ACT plays a particular formative role in these university goals:

- **GOAL 1:** Enroll and support a diverse mix of increasingly creative, multi-talented students.
- **GOAL 4:** Continue to attract and retain world-class faculty committed to elevating RIT's collective excellence in scholarship, teaching and service.
- **GOAL 8:** Design and integrate unique curricular experiences at the intersection of RIT's programs in Technology, Art, and Design (TAD). Design new and revise existing programs in non-STEM disciplines that increase enrollment through this same distinctive integrated core.
- **GOAL 16:** Create a distinctive RIT brand and develop a supporting content marketing strategy that makes use of all relevant media.

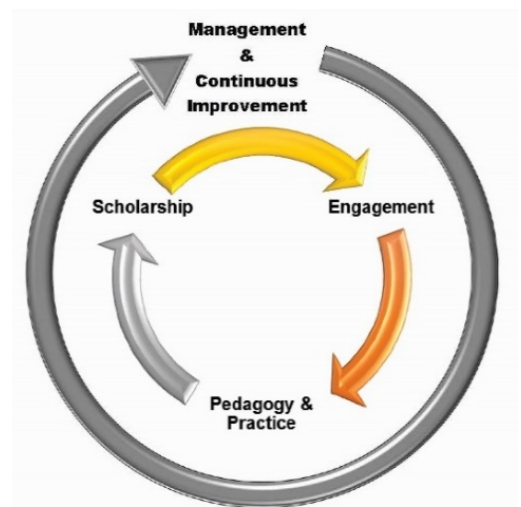
This plan follows the initial ACT SAP for 2015-18; the SAP is a guidance document that is reflected by the annual plans of work for the Fram Chair office. This plan centers on impacting the student experience, and therefore, student engagement is THE key part of our efforts.

## Highlights of Accomplishments in 2020-2021

Accomplishments include 18 events with nearly 1000 participants with the same operational budget first allocated in 2011. In a new model, we seek to support a broad range of ACT that increases both our impact and our reputation across the campus as a partner in advancement of applied critical thinking in each domain, and across domains.

### Events

Over the past year, events became an important mechanism to support engagement both for the RIT community and for the wider community. Although the number of events was lower this year due to the COVID-19 Pandemic, the number of attendees was nearly 1000. Many of these events were held via zoom, but a few also occurred in person as COVID- 19 restrictions allowed.



Date	Co-sponsor	Description (include panel, speakers, link to event, etc.)	Registered
09/18/20	Gray Matters	<i>Is Greek life essential at RIT?</i>	31
10/07/20	COS / SMA	"Inferring Distributions of COVID-Positive Individuals from Wastewater Tests on a College Campus". Wednesday, October 7, 2020. Dr. Nathan Cahill, Director, Mathematical Modeling Ph.D. Program, Associate Professor, School of Mathematical Science. <a href="https://youtu.be/BXJXDFKpoaE">https://youtu.be/BXJXDFKpoaE</a>	129
10/13/20		Critical Thinking as a professional skill for disruption & innovation -- Guest lecture for RIT Croatia Students by Dr. Jennifer L. Schneider. This seminar explored the process of Applied Critical Thinking, and how it can make you more prepared to not only survive but thrive and use disruption as an advantage in your life and your career.	5
10/16/20	Gray Matters	Does the Presidential election matter?	33
10/27/20	Alumni Relations	Webinar: " <i>Thinking through Business Continuity for the Event Industry during Covid-19: Networking for Success</i> ", by Ines Nanic, BS '04—Hotel & Resort Management, RIT Croatia. In the heart of the devastated industries during the world pandemic in 2020, tourism is surely at the top of the list. Within tourism, the event industry is by far the one that has suffered the most. Unable to hold events, its recovery will take years. Not only must event companies have the funds to survive during this downtime, they must also be well connected and innovative with their survival plans.	43
11/13/20	Gray Matters	Has the Pandemic Changed Us Forever?	17
11/23/20	Alumni Relations	Webinar: " <i>Critical Thinking Luxury Tourism</i> ", by Ana Roncevic, BS '14—Hotel & Resort Management, RIT Croatia. There were certain trends evolving in the luxury travel industry even before the onset of the Covid-19 pandemic. Are these trends even more valued today? Can we grow beyond our pre-pandemic level of doing business? Let's take this disruption as a driving force to optimize ourselves as service providers and to re-define the meaning of luxury.	92
12/07/20	Alumni Relations - Bill Sachman	Webinar: Critical Thinking Hospitality & Tourism in Times of Crisis: RIT hospitality & tourism management faculty and alumni discuss how hospitality businesses have dealt with different dynamics presented by the COVID-19 pandemic in an array of geographic locations throughout the United States. Our panelists include: <b>Scott Ingwers</b> BS '88 (Hotel & Resort Management) - Regional Vice President at Trump Hotels, Honolulu County, Hawaii; <b>Rick McKeown</b> BS '01 (Hotel & Resort Management) - Complex General Manager at Ocean Properties, Key West, FL; and <b>Harvey Stern</b> BS '84 (Hotel & Resort Management) - Executive Director of Catering and Banquets at Bellagio, Las Vegas, NV. The webinar will be moderated by Rick Lagiewski, Ph.D. (Assistant Professor, Saunders College of Business Department of International Hospitality & Service Innovation). <a href="https://tigers.rit.edu/site/Calendar?id=100361&amp;view=Detail&amp;_ga=2.170312032.1540806640.1605534106-2107110105.159172858">https://tigers.rit.edu/site/Calendar?id=100361&amp;view=Detail&amp;_ga=2.170312032.1540806640.1605534106-2107110105.159172858</a>	58

01/27/21	GCCIS Sch of Interactive Games & Media	Global Game Jam. Online event for Alums, students and everyone who wants to make a game.	99
02/04/21	Gray Matters	"Should prisons be abolished?"	19
02/26/21	SCB Alumni Panel	Fram Speaker Series: John Ward's class: <b>Eugene Fram &amp; SCB Alum Robert Fritze &amp; Phaedra Ruffalo</b>	75
03/05/21	Gray Matters	"Is Speech Free?"	29
03/31/21	Elaine Clooney, Dan Koo, et al. Indiana University	Jen Schneider was the invited guest speaker ENT Broaden Pathways to Success through Collaborative Systems: Creating a Diverse Faculty Atmosphere in Engineering Technology (Using ACT for faculty success)	45
04/17/21	Lyndsay Herkimer, Erika Mesh GCCIS/IG&M	Student Game Showcase – Jen Schneider participated in the judging for this event. The Fram Office donated \$250 prize (donation to charity of winner's choice). 17 games were submitted.	69

#### Other events included the following:

- Summer 2020: Co-sponsored three virtual events last summer with Alumni Relations that focused on the pandemic. Topics included “Community Critical Systems”, “Social Vulnerabilities and Covid-19”, and “Medical Innovations in times of Crisis”. (Total attendance = 147)
- December 10, 2020: Dr. Schneider presented to Occupational and Environmental Medicine medical professionals during a virtual URM Grand Rounds session called “Riding the Perfect Storm: COVID-19 at the Confluence of Community & Occupational Health.”
- The Fram Office of Applied Critical Thinking was proud to be a [sponsor for The School of Interactive Games and Media’s 2021 Student Game Showcase](#). The categories for the Showcase were game impact, game feel, technical excellence, aesthetics, and best in show. Our office sponsored the Game Impact category. Dane Sherman won the category with his game “Atom”. It was decided the prize money from each sponsor would go to a charity in the name of the team that won. Dane Sherman won the “game impact” with his game, “Atom”. Dane chose Thaki as the organization for his charitable choice. (65 student participated)

**Difficult Dialogue Facilitator Training:** The Fram Office of Applied Critical Thinking participated in this workshop facilitated by Taj Smith on January 22, 2021.

#### Postponed Events Due to the Pandemic:

- Due to Covid-19, the Fram Signature Event featuring Sam Bratches that was scheduled for September 2020 has been rescheduled for September 2021. Alumnus Bratches '83 '91 was

named the Saunders College Distinguished Alumni award in 2015. Bratches is the former Executive Vice President, Sales & Marketing for ESPN and most recently was Managing Director of Commercial Operations for Formula 1 as well as being an advocate for RIT students in his industry.

## **Creating Engagement**

Despite the ongoing pandemic, the ACT initiative still remained a visible part of the RIT community and experience. As part of our orientation to being always relevant and useful, a portion of our efforts were focused on teaching and learning during the pandemic, understanding the science of COVID-19 through critically thinking about where we consume our news, and assessing the impact of this ongoing emergency. Intentionally, Fram also cosponsored several Gray Matter events surrounding issues of race and equity to frame the larger discourse across the nation and our world. Engaging in applied critical thinking was more critical than ever.

**Scholarly Artifacts:** During this year, there were 1521 scholarly artifacts. Of those artifacts, faculty designated 251 (16%) artifacts as ACT. Examples include:

- Hartnett, Jessica L. and John E. Edlund. "Critical Thinking and Discussion Boards in Undergraduate Research Methods." *Currents in Teaching and Learning* 12. 1 (2020): 56-64. Print.; Dept of Psych (developing CT in research methods)
- Gottlieb, Owen and Ian Schreiber. "Acts of Meaning, Resource Diagrams, and Essential Learning Behaviors: The Design Evolution of Lost & Found." *International Journal of Designs for Learning* 11. 1 (2020): 151-164. Web.; Interactive Games and Media (using games to generate CT)
- Barlow, Nathaniel S. and Steven J. Weinstein. "Accurate Closed-form Solution of the SIR Epidemic Model." *Physica D: Nonlinear Phenomena* 408. (2020): 132540. Print; Chemical Engineering (using CT to make better models for COVID)

**Communication Plan:** Nine issues of the Fram Focus newsletter were published. These newsletters highlight upcoming Fram events, co-sponsored events, a brand-new highlighted page of the Community of Practice for our College Course Advancement Team (CATs) recognition for excellence in Applied Critical Thinking, and feature relevant news and scholarly articles selected by Eugene H. Fram.

- The Office of the Fram Chair was featured in 3 articles in RIT's University News, all related to

critical thinking during the pandemic:

- February 2, 2021: “[COVID-19 and winter](#)”, by Karina Le
- December 10, 2020: “[RIT’s Fram Chair delivers presentation about COVID-19 to medical professionals](#)”
- July 30, 2020: “[RIT to monitor wastewater for signs of surges in coronavirus cases before symptoms set in](#)”, by Luke Auburn.

**New Teaching Circle:** The way information is consumed and used to develop knowledge has changed, especially for young people. New methods of gaining knowledge also impact our information application within our disciplines. This teaching circle focuses on ACT (Applied Critical Thinking) with particular emphasis on developing best practices for (1) student capacity to evaluate information quality and use information from various sources across the disciplines, and (2) practicing the art of collegial conversations and critique in the disciplines. This compendium could be shared on the Fram website.

We acknowledge that “information acuity” is a crucial skill broadly developed in general education. In addition to supporting that, this teaching circle aims to address the need to firmly translate foundational ACT also into discipline-based thinking. Possible areas for exploration include such initial ideas as:

- How do we define information?
- How do we evaluate the claims and data behind the scientific headlines?
- How does public perception impact the view and success of technology and innovation?
- How can we develop skills for conversations and discourse across opposing views?
- Can the skill of critique in art lead us toward more fruitful interactions in other arenas?
- How has our emerging style of knowledge consumption driven differing views of what constitutes fact?
- How should we “research” facts from a variety of sources, including social media?

Every few weeks, we will host an approximately one-hour Zoom session. The circle will be limited to 8-10 faculty & staff and each member should be prepared to develop and share best practices across this crucial topic. This teaching circle will be a shared experience, facilitated by Jennifer Schneider and several members of the Fram Advisory Board\* and RIT faculty. They are:

Heath Boice-Pardee\*  
Cory Crane\*  
Mike Eastman\*  
Trent Hergenrader  
Christine Keiner\*  
Sharon Mason

Mark Nieland  
Sylvia Perez-Hardy\*  
Patricia Poteat\*  
David Ross\*  
Cynthia Tawaf  
Brian Thorn\*

### **Critical Thinking Course Highlights**

- **Year One/365 course:** Dr. Schneider continued her association with Year One or 365 by serving on their advisory board as they have offered this newly enhanced course and student experience. Content related to ACT is integrated into the 365 curriculum, and students complete a baseline perception assessment of their ACT skillset. This supports our ability to develop measures to evaluate their ACT growth over their RIT time. The Fram Office will collect final year data from students and use the analysis to support continuous improvement.
- **RIT edX (part of RITx Soft Skills Professional Certificate):** In an effort to grow enrollments in the six courses that we were offering as part of the Soft Skills Professional Certificate, we split them up and repackaged them into two new Professional Certificate programs. The RITx Critical Thinking & Problem-Solving offering is now part of the Leadership Essentials Professional Certificate. Please note that the more recent verified enrollments may be far higher due to an initiative which we collaborated with edX to make education more accessible through COVID by distributing coupons (free verification) to specific audiences in need.
  - **CRITICAL THINKING & PROBLEM SOLVING**  
*As part of the Soft Skills Professional Certificate*  
Total Enrollments (to date as of August 31, 2020): 91,749  
Verified Enrollments (to date): 1,425  
Passing Learners (to date): 889
  - **CRITICAL THINKING & PROBLEM SOLVING:**  
*As part of the Leadership Essentials Professional Certificate*  
Total Enrollments (to date as of August 31, 2020): 74,600  
Verified Enrollments (to date) 2,486  
Passing Learners (to date): 1,550

## 2021 Fram Award at Imagine

Unfortunately, the Fram Award at RIT Imagine was not awarded due to the virtual nature of the event this year.

## Pedagogy & Practice

- Community of Practice & Exemplars: Our current Community of Practice membership now includes sixty RIT faculty and staff members in the ongoing CoP, CoP Disaster and the newly created CoP College Course Advancement Team (CATs), broadly representing the university. Please note that three of these individuals have since retired or left RIT.
- Assessment: There are approximately 600 general education courses with confirmed ACT components and many program-level courses that support ACT@ RIT, by continuing to build our assessment strategy for ACT through these courses. Examples include:
  - Longitudinal Study: The assessment processes for ACT continued to be an area of growth. In Fall 2020, the Fram Advisory Board decided to suspend data collection for the study and resume it in Fall 2021. This data will be used to inform and forward a broader longitudinal study examining the growth of student ability to apply critical thinking across their RIT student experience.
  - Student Learning Outcomes & Rubrics: (See Appendix 2). Dr. Schneider reviewed RIT's assessment of one of the Critical Thinking learning outcomes (summary attached) at each RIT location. [Assessment results for each outcome are now available online](#). She served on the General Education Assessment Advisory Board and made recommendations related to faculty engagement and recognition. Additionally, the council recommended a move to a new assessment schedule in which all four critical thinking outcomes will be covered in the same year. Review of the critical thinking outcomes (general education as well as the potential for program level) is ongoing.
  - International Campus efforts: Opening events in fall 2020 were planned for each campus but had to be reconfigured due to the pandemic. Despite these challenges, each international campus still engaged in activities, and RIT China will formally join the



international advisory board in 2021.

- **Rochester Institute of Technology – Croatia**

- RIT Croatia continues to invite people from both RIT and Croatia to work together to develop shared courses.
- Dr. Schneider was the virtual guest speaker to the Croatia campus in October 2020 introducing a lecture titled, “Critical Thinking as a Professional Skill for Disruption and Innovation”.

- **Rochester Institute of Technology – Dubai**

- RIT Dubai’s curriculum focuses on critical thinking assessments across all RIT Dubai Ethics courses in the form of discussion boards and critical thinking questions.
- Addition of student presentations to ethics courses. Students were instructed to choose real-life situations in which core concepts and theories from the class could be applied. Student presentations included a summary of the circumstances of the chosen case, an application of relevant course concepts and principles, an evaluation of arguments related to these concepts and principles, as well as questions for wider class discussion.
- Inclusion of critical thinking as Classroom Assessment Techniques across all courses:
  - 3-2-1: Students write down 3 things they learned in the lecture, 2 things they found interesting, and 1 question about the lecture.
  - Muddiest Point: Students write down the part of the lecture they understood the least. Promotes reflections on gaps in learning.
  - Table of Contents: Students brainstorm on what the content of the course will be about and then collaborate with other students to create a course TOC.
- Critical Thinking Presentations to the Science & Liberal Arts departments at RIT Dubai on the nature of significance of critical thinking in curriculum, assessment, and lecture design.

- **Rochester Institute of Technology – Kosovo**

- RIT Kosovo integrated the critical reading model across the

curriculum by adding activities for students to practice and demonstrate their application of this skill.

- Adding more in-class reading assignments; included short passages and required students to discuss these readings in small groups to present their analyses.
- Incorporated more project-oriented assignments into future iterations of courses.
- Planning to continue group work with smaller groups and differentiate on topics to be researched.

▪ **Rochester Institute of Technology – Kosovo and China** (Jude Okpala will formally join the IFAB in 2021 and submitted the following.)

- Critical thinking is the crux of the General Education curriculum. Students engage in critical thinking in “written Argument” in Kosovo and formulated arguments where they demonstrate a position with logic and evidence. A major rubric for the argument is the need for critical analysis of sources and verification of evidence both aspects of the course require effective uses of logic.
- RIT China participated in the Inaugural RIT Global Humanities Conference. Students submitted proposals for and presented at the Conference. Some submitted the presented papers for publication. Such work is a critical thinking feat, for students were required to develop a thesis pertinent to the theme of the Conference: Being Human in the 21<sup>st</sup> Century.

### **Fram Badge & The Mind Field**

Working with the FEAB, scoped and began development of a new experiential opportunity for students, nominally called the Fram Badge in ACT.

# RIT Critical Thinking Certification

## Initial Certification Track Ideas

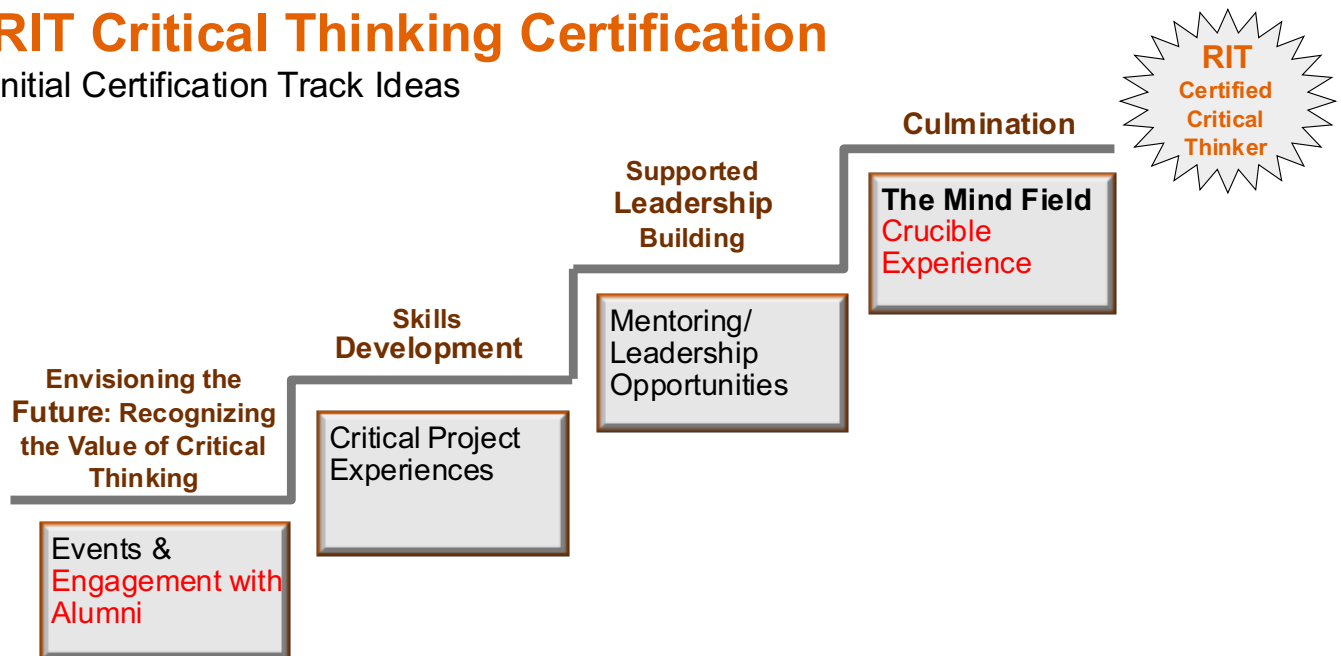


Figure: ACT Fram Badge

The Fram Badge is an exciting new development in the Fram Portfolio. At its core, the Badge is earned upon completion of a process that includes: 1) engagement with alumni and attendance at events with speakers of significance; and 2) demonstrated development of ACT as part of project and team experiences and completion of a MIND field experience, centered around wrestling with a complex problem for which there is no clear answer nor path to follow, especially in a group inter-major or cultural capacity. While still in the early stages, portions of this effort, specifically, the MIND field, are planned to be piloted in the coming year.

### External Engagement Efforts

RIT continued to engage externally in many efforts, and have begun making strides in creating external partnerships and building its reputation over the past year, including:

- Developed a collaborative relationship the University of South Florida - **A Helene Robinson, Ed.D., Ed.S.** Director of Critical, Creative, & Design Thinking Program, Arts Integration

Coordinator/[USFSM Incredi-Bull](#) Faculty Member, Department of Curriculum, Instruction & Learning/College of Education, to share assessment systems, policies and strategy.

### **Supporting Corollary RIT Initiatives & Campus Partners:**

- **Predictive Analytics:** Dr. Schneider has participated in the university committee addressing student retention and resilience to improve persistence and on time graduate rates (OTG), but dropped back involvement this year due to pandemic responsibilities. As we return to the new normal, this activity will be placed back into the Fram efforts. There is much cross over between student success and student ability to critically think about their own self efficacy. Since RIT has built a successful program in critical thinking for professional and citizenship success, and that same frame can be translated to assist students in understanding the use of critical thinking for their personal lives and overall challenges. This effort dovetails with the processes and analytics that are part of ACT@ RIT.
- **Alumni Relations:** Alumni Relations continues to build programming for alumni that is relevant to their goals and creates a relationship to the university and this collaboration with ACT continues to grow.
  - Fram External Advisory Board presents a natural opportunity for selected alumni to give back their time and expertise to the university, by guiding the initiative and acting as ambassadors for the effort and RIT. This relationship was leveraged in our original (but postponed) planning for Spring 2020, and our resurrected webinar plans in summer 2020. Alumni are a terrific, engaging resource for our students and our faculty.
  - Co-sponsored three very successful disaster webinars in May and June 2020. They were “Critical Systems”; “Social Vulnerabilities and Covid-9”; and “Medical Innovations in Time of Crisis.
  - Co-sponsored a webinar in October 2020: “Thinking through Business Continuity for the Event Industry during Covid-19: Networking for Success”, by Ines Nanic, BS '04 Hotel & Resort Management, RIT Croatia.
  - Co-sponsored a webinar in November 2020: “Critical Thinking Luxury Tourism”, by Ana Roncevic, BS '14 Hotel & Resort Management, RIT Croatia.

## **Integration with RIT's Major Goals**

The importance of ACT in RIT's long-term strategy is evident. Development of leaders within and at the intersection of technology, art and design requires fostering complex visionary thinking that is

grounded in ACT skills. Applied Critical thinking has a role to play in the integrative learning path with RIT, and this effort continues to increase the impact of the ACT effort.

## Challenges to ACT Integration

The ACT at RIT initiative faces challenges that must be overcome collaboratively. RIT must continue to foster engagement of our own RIT community by establishing both top-down and bottom-up support, and build connections at both the general education and program level, and through extracurricular activities outside degree programs. Advancing RIT's reputation in the university community is paramount importance. It is a simple truth that there are many priorities and distractions on a college campus that make it difficult to emerge from the crowd of opportunities, particularly without a clear connection to the disciplines that attracted students to RIT. The educational community, as well as popular media and literature, paints a somewhat negative picture of college students' ability to think and focus beyond self. This view is not lost on our students and does not make it easy to build a rapport and inspire interest in engaging in critical thinking activities. Further, learning and practicing critical thinking is difficult, takes time, and is resource-intensive for faculty, students, and classes, requiring a significant commitment on the part of all, including the university itself. ACT must be an expected *and* obvious part of each student experience, so that the students see and understand their role in developing their own capabilities.

## ACT Recommendations

Our efforts in ACT now give us the opportunity to make a significant impact both inside and outside of RIT. The processes, engagement and curricular structures, and best practices are now in place to allow our effort to mature and evolve. The Fram Chair is ultimately responsible for the leadership of the ACT initiative by creating community engagement and integration across the student experience. Our immediate goal is to increase faculty, staff, and student capacity to practice ACT by significantly enriching (or expanding) the student impact despite the challenges of COVID-19.

The opportunity to leverage our ACT@RIT initiative to advance RIT on many fronts is apparent. The academic year 2021-2022 will be focused on support of student success across our campuses, faculty teaching and learning of critical thinking, particularly as we develop and refine modalities of teaching, focusing on:

- Framing of systems to expand the ACT initiative to our graduate programming and support the growth of the ACT skillset with our graduate students as our next generation of teachers, researchers and leaders.
- Creating and piloting the MIND Field experience as part of the Fram Badge to build additional experiential opportunities to practice ACT.
- Continuing to develop and export the RIT ACT success to off campus partners and thereby, grow the ACT impact beyond RIT.
- Increasing connections between traditional and unique educational experiences across RIT including ACT as the key lynchpin and pivot point to support other major RIT initiatives, for example, KEEN, growth mindset, Grand Challenges, Tech, Art & Design, etc.
- Use of data to inform holistic continuous improvement. Through the ACT perception survey and the SLO results, the Fram Office will work with the Assessment Office to refine improvement plans.
- Engage in broader grant writing and external funding opportunities through foundations, governmental funders and development.
- Revisit the Fram Strategic Plan, and evaluate long term needs and structure of the Fram ACT initiatives.

By leveraging ACT through interdisciplinary efforts and growing critical thinking, we can advance the whole university, and our greater society.

## Conclusion

The Applied Critical Thinking initiative has the required components in place to achieve our goals of creating an environment that cultivates advanced critical thinking skills for RIT students and alumni and establishes national prominence and recognition for RIT.

Fram/ACT will continue to cultivate an integrative and future-minded presence at RIT and beyond. Living through this pandemic, it is apparent that this initiative is more important than ever to develop and support effective citizen-leaders that can successfully face the challenges of our evolving world and create a compelling future.

## Appendix 1: History

The Eugene H. Fram Chair in Applied Critical Thinking was funded in 2011 by an anonymous RIT alumnus to honor Professor Eugene H. Fram. Gene Fram is a Professor Emeritus of Marketing who retired from RIT in 2008 after 51 years of teaching at Saunders College of Business. He is known for his expertise in the study of retail malls and shopping, Internet retailing, nonprofit and corporate governance, and advertising. Professor Fram received his Ed.D. in Higher Education from the State University of New York at Buffalo, his MS degree in retailing from the University of Pittsburgh, and served as the J. Warren McClure Research Professor of Marketing at RIT. Gene is the recipient of the 1997 Eisenhart Award for Outstanding Teaching and the RIT Presidential Medallion in 2008.

Dr. Clarence Sheffield served as the inaugural Fram Chair from 2012 to 2015, and laid the foundation for the effort, including establishing the first faculty advisory board, writing of the *Critical Thinking Across the Curriculum* report, adoption of general education student learning outcomes for critical thinking, engaging faculty and students through small group events and hosting of five speakers.

The effort was reorganized in 2015-16 with the appointment of Dr. Schneider, with the goal of impacting the student experience through faculty engagement and transparent communication. Since that time, major accomplishments have included the seating of three advisory boards comprised of Rochester faculty and staff, international campus faculty, and an external alumni advisory board; creation of two successive action plans that dovetail with university strategy; ongoing measurement and continuous improvement of student critical thinking through data gathering and analysis; implementation of a communication plan including the Fram Focus Newsletter, website, and social media; support of learning initiatives for faculty and students both on campus and through distance learning; and the establishment of the Fram Awards at RIT Imagine. In 2015-16, Dr. Schneider was also supported part-time by Dr. Evelyn Brister of COLA, Philosophy, who created a new course in ‘Responsible Knowing’. Dr. Schneider initiated and continues the practice of disseminating an ACT annual report that summarizes efforts and accomplishments. This initiative expanded in 2016-17 with increasing engagement and integration of the effort on the Rochester campus. External and internal engagement accomplishments include establishment of the Fram External Advisory Board, a social media presence on Facebook and Twitter, a new student-directed introductory video, and a partnership with University News as part of an expanding external

outreach effort. The internal curricular efforts include three applied critical thinking experimental courses, an updated information literacy rubric and implementation of an argumentation rubric. Significant campus engagement resulted from fourteen events, Fram signature and collaborative programming, and the beginnings of a faculty/ staff community of practice. In addition to the regular applied critical thinking programming at RIT, more than 600 participants actively engaged in specific Fram opportunities over the course of the academic year.

2017- 2018 saw substantial increase of social media presence on both Facebook and Twitter, proposal of an Association of Independent Technological Universities (AITU) Applied Critical Thinking summit with peer university administrators for 2019, publishing of papers related to the implementation and evaluation of applied critical thinking at RIT, and a critical thinking-centric proposal to Misk-Gates Foundation. Internal efforts include establishment of the International Fram advisory board (IFAB) that includes members from our international campus locations, the very first Provost's Learning Innovations Grants (PLIG) awards, and creation of rubrics for ACT-related analysis and evaluation of creativity and innovation student learning outcomes. Thirteen Fram events and collaborative programming created significant campus engagement. The year-over-year participation increased 4%, more than 850 participants actively engaged in specific Fram opportunities.

In 2018-19, the maturation and integration of the Applied Critical Thinking initiative at the Rochester Institute of Technology (ACT@RIT) continued under the leadership of Dr. Jennifer L. Schneider. Applied Critical Thinking at RIT is framed, functional, and ready to meet greater challenges. We have entered a new phase of ACT efforts on the national stage and are also poised to deepen our efforts to fulfill university goals. We have increased on-campus participation 700% over the last 5 years. We hosted 12 college-focused Fram events, and an institute -wide spring lecture and fall signature event set that were very successful. The year-over-year participation increased 61% to an all-time high of 1400 attendees despite the ongoing challenge of capturing interest on our busy campus.

Engagement is more than event attendance, but strategic refinement of university systems for student success. Notable accomplishments are measurable at all RIT campuses, including: implementation of



the suite of rubrics for ACT-related student learning outcomes, and initiation of data informed ACT process evaluation; completion of a first-year student perception survey for Rochester that forms a baseline for longitudinal student assessment; establishment of a relationship for future RIT4LIFE opportunities; continued successful university- level offerings including the graduate ‘Worldmaking’ salon and a critical thinking course through RIT edX; growth in faculty support including resources, rubrics, teaching circle and workshop offerings; initiation of participation and feedback survey for RIT international campuses; and successful planning for the first of its kind Association of Independent Technological Universities (AITU) Applied Critical Thinking Summit, attracting participation for our peer institutions for a summit in August 2019.

In 2019-20, the maturation and integration of the Applied Critical Thinking initiative at the Rochester Institute of Technology (ACT@RIT) continued under the leadership of Dr. Jennifer L. Schneider. ACT@RIT is framed, functional, and ready to meet greater challenges. We have entered a new phase of ACT efforts on the national stage and are also poised to deepen our efforts to fulfill university goals. We have increased on-campus participation 700% over the last 5 years. This year, we hosted 24 cosponsored Fram events, and an Institute-wide fall signature event that was very successful. The year-over-year participation increased 64.6% to an all-time high of nearly 2500 attendees despite the challenge of the COVID-19 Pandemic. The measure of our success is not limited to event attendance but defined by our level of engagement and strategic refinement of university systems for student success. Notable accomplishments are measurable at all RIT campuses, including:

- Successful AITU summit of peer universities in August 2019
- Development of unique webinar event series with Alumni Relations and several colleges related to the pandemic (capitalizing on the RIT4Life model).
- Establishment of a unique Community of Practice Disasters that highlighted professors that contribute in this important area.
- Continued growth in faculty support including resources, rubrics and workshop offerings.
- Initiation of support and engagement of RIT international campus faculty.

## Appendix 2: Learning Outcomes

**Critical Thinking** refers to those processes required to understand and evaluate complex claims of various sorts. It involves the evaluation of information, evidence, arguments, and theories, and the contexts in which these are encountered. It entails the questioning of different and competing perspectives, and challenging the (sometimes hidden) assumptions and inferences that determine what will count as evidence or argument. Critical thinking is learning to think in a disciplined and evaluative manner, to analyze and interpret the processes by which various claims are made and reliable conclusions are reached. (Source: RIT current Educational Goals Definition)

	Academic Programs	Co-op Employer Evaluation 2016-18	NSSE 2015	
<b>Measure and Results</b>	100% of programs identified at least one program goal/student learning outcome	<b>Critical Thinking:</b>  <b>Information Literacy:</b> <i>Accesses and synthesizes information from appropriate sources</i> 4.4 out of 5.0 <b>Met</b> (n=624)  <b>Creative/Innovative</b> Synthesizes existing ideas, images, or expertise in original ways 4.3/5.0	NSSE 4b. <i>Applying facts, theories, or methods to practical problems or new solutions</i> Senior <b>Approaching</b> RIT 3.0, AITU Peer 3.1  NSSE 4c. <i>Analyzing an idea, experience, or line of reasoning in depth by examining its parts</i> Senior <b>Met</b> RIT 2.9, AITU Peer 2.9  NSSE 4d. <i>Evaluating a point of view, decision, or information source</i> Senior <b>Met</b> RIT 2.6, AITU Peer 2.6  NSSE 4e. <i>Forming a new idea or understanding from various pieces of information</i> Senior <b>Met</b> RIT 2.8, AITU Peer 2.7	
<b>University Level Benchmark</b>	100% of programs will identify at least one program goal/student learning outcome aligned to Critical Thinking	Employers will rate RIT students 4.0 or higher Scale 1(poor) – 5 (excellent)	RIT Seniors will report a mean that is higher than or on par with their AITU Peers (n= 800 RIT seniors, ~1800 AITU)	
<b>Preliminary Action Items</b>	Develop faculty team to determine criteria, core assignment(s) and set benchmark	Review/analyze co-op student evaluation responses to qualitative questions re: Critical Thinking	Ongoing review of NSSE data for trends	

## Appendix 2: Learning Outcomes

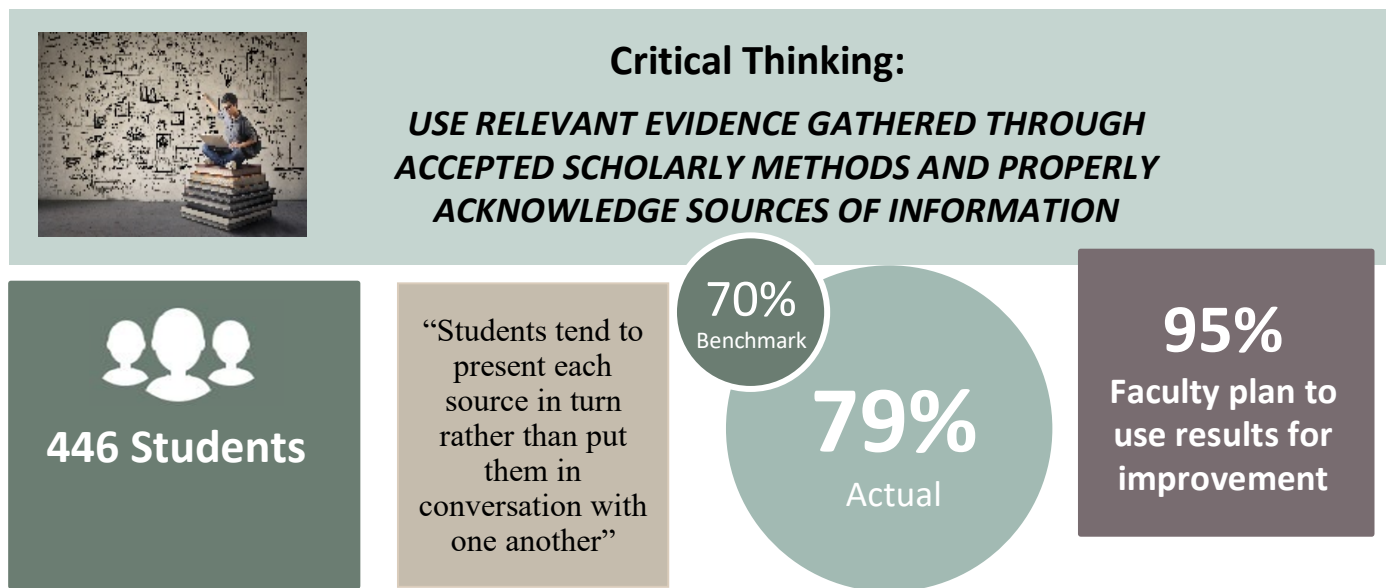
General Education Student Learning Outcomes Proposed Assessment Schedule 2020-2026*													
Framework	General Education Student Learning Outcome	2020.21 Assessment		2021.22 Assessment		2022.23 Assessment		2023.24 Assessment		2024.25 Assessment		2025.26 Assessment	
		Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring
Communication	Express oneself effectively in common college-level written forms using standard American English				X							X	
	Revise and improve written products			X									X
	Express oneself effectively in presentation, either in spoken standard American English or sign language			X								X	
	Demonstrate comprehension of information and ideas accessed through reading				X								X
Critical Thinking	Use relevant evidence gathered through accepted scholarly methods and properly acknowledge sources of information							X					
	Analyze or construct arguments considering their premises, assumptions, contexts, and conclusions, and anticipating counterarguments								X				
	Reach sound conclusions based on logical analysis of evidence							X					
	Demonstrate creative or innovative approaches to assignments or projects								X				
Social	Analyze similarities and differences in human social experiences and evaluate the consequences					X							
Global	Examine connections among the world's populations		X**			X							
Ethical	Identify contemporary ethical questions and relevant positions						X						
Artistic	Interpret and evaluate artistic expression considering the cultural context in which it was created						X						
Scientific Principles	Demonstrate knowledge of basic principles and concepts of one of the natural sciences		X**							X			
Natural Inquiry of Science	Apply methods of scientific inquiry and problem solving to contemporary issues and scientific questions		X**							X			
Mathematical	Comprehend and evaluate mathematical or statistical information	X									X		
Mathematical	Perform college-level mathematical operations or apply statistical techniques	X									X		

\* Schedule may be revised based on achievement of the General Education Student Learning Outcomes

\*\* Spring 2020 outcome assessment postponed

Revised 2020 Office of Educational Effectiveness Assessment / Academic Affairs

## Appendix 2: Learning Outcomes (continued)



RIT students’ ability to *Use relevant evidence gathered through accepted scholarly methods and properly acknowledge sources of information* was measured in a spring 2018 course-embedded assessment utilizing a university developed rubric. Additionally, RIT senior scores from the National Survey of Student Engagement were analyzed and compared to senior mean scores from peer institutions. This report provides results, trends, and faculty recommendations to improve student learning.

### **Results & Trends**

RIT’s achievement benchmark was exceeded, as 79% of students scored a Competent (3) or higher on the rubric. The results (Figure 1) show that students scored the highest on the rubric performance criterion “*Identify Problem Scope*” and lowest on their ability to “*Integrate Sources*.” One faculty member noted that “*students tend to present each source in turn rather than put them in conversation with one another*.”

Trend data is not available for this outcome because the rubric was revised before this assessment. Revisions included changes to the criteria, language, performance ratings, and benchmark. The purpose of this revision was to make the rubric broadly applicable to a larger variety of disciplines and assignment approaches as well as to simplify scoring and align with other RIT General Education rubrics. The benchmark was not met in the prior assessment, in which faculty scored student portfolios collected from First-year writing (UWRT 150).

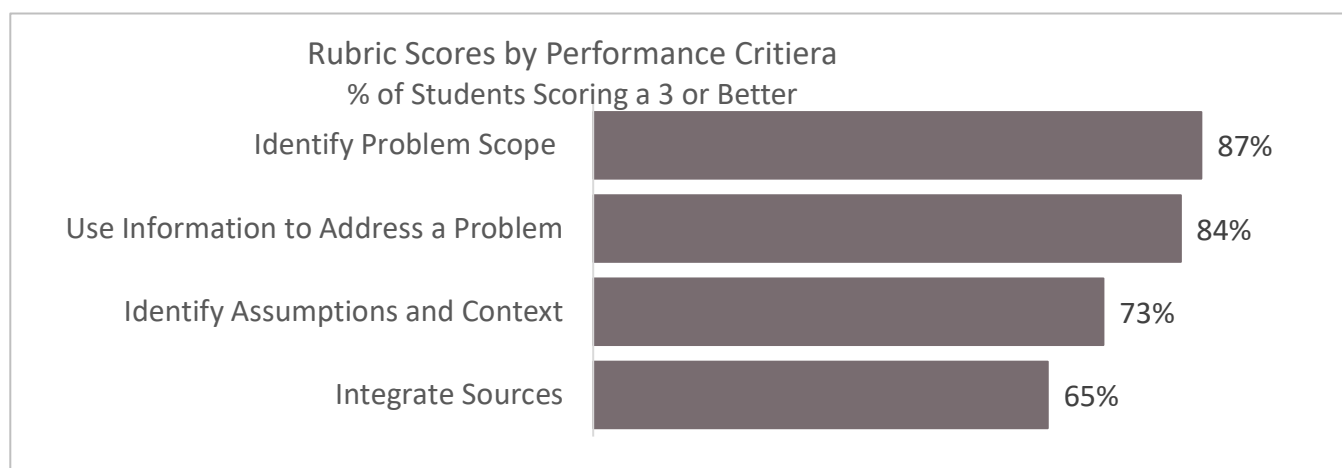


Figure 1: Use Evidence Rubric Scores by Criteria

Faculty shared instructional and assignment design strategies that help students achieve this outcome, along with noting areas where students could improve (Table 1). The ability to *Integrate Sources* was the area of greatest challenge for students, however, written responses and recommendations from faculty pointed to additional areas for improvement. Interestingly, all of the rubric criteria were mentioned as pain points at least once, and students' ability to *Identify Assumptions and Contexts of Information* was cited by faculty as frequently as their ability to *Integrate Sources*.

Table 1: Strengths and Opportunities Related to the Use of Relevant Evidence

What Works	What Needs More Work
<ul style="list-style-type: none"> <li>• <b>Feedback:</b> provide students with feedback (from faculty, peers, and the writing commons) and the opportunity to make revisions based on the feedback</li> <li>• <b>Scaffolded Assignments:</b> which break down projects or research papers into steps; a crucial step is asking students to examine the way they use sources</li> <li>• <b>Annotated Bibliography:</b> or other method where students break down sources, consider how they are using them, and the context</li> <li>• <b>Research:</b> conduct their research to develop an awareness of assumptions, biases, etc.</li> </ul>	<p><b>Critical Reading and Analysis:</b> help students integrate sources and identify assumptions and context</p> <p><b>Library and Database Use:</b> provide training in library resources and reference databases early in student's college career</p> <p><b>Proper Citation:</b> provide additional guidance and add clarity to expectations regarding proper citation methods and use of citations for internet sources and paraphrasing</p>

### Additional Data: Co-op Employer Evaluation

Students participating in an RIT co-op experience are rated by their supervisors on the Co-op Employer Evaluation after their co-op experience. RIT established a benchmark that employers will

rate RIT students' Information Literacy skills as a 4 (Exceeds Expectations) or greater out of 5. The results show the students meeting the benchmark, with a mean rating of over 4 for this item (see Table 1).

Table 1: Co-op Employer Evaluation Results for Information Literacy

Co-op Employer Evaluation Item	# of Evaluations	Benchmark	Mean Rating AY 2016-18 (1-5)*
<b>Information Literacy:</b> Accesses and synthesizes information from appropriate sources (CHST, CLA, COS, CAD)	624	Met	4.4/5

### Additional Data: National Survey of Student Engagement (NSSE)

NSSE measures the extent to which first-year students and seniors are engaged in educational practices associated with student success. Self-reported scores from the 2017 administration of NSSE which are mapped to this outcome were also examined to gather insights into student achievement related to this outcome. The RIT benchmark is as follows: the senior mean score on the selected NSSE item is on par with or higher than their AITU or Transferable Skills Module peer mean score.

NSSE results show RIT Seniors meeting the benchmark for one survey item but falling below the benchmark for the other item (Table 2).

Table 2: NSSE Results Mapped to Outcome

Use relevant evidence gathered through accepted scholarly methods and properly acknowledge sources			
During the current school year, how much has your coursework emphasized the following?	Benchmark	2017 RIT Senior Mean (1= <i>Very Little</i> , 4= <i>Very Much</i> )	2017 AITU Senior Mean
4d. Evaluating a point of view, decision, or information source	Met	2.7	2.7
NSSE (2017 Transferable Skills Module) How often have you written something (paper, report, article, blog, etc.)	Benchmark	2017 RIT Senior Mean (1= <i>Never</i> , 4= <i>Very Often</i> )	2017 Senior Module Mean
TRN02b. Assessed the conclusions of a published work	Not Met	2.4	2.8***

### Continuous Improvement

Based on the results, faculty members shared plans to modify curriculum and instruction, or made recommendations regarding changes RIT can make at the course, program, or university level to improve student learning for this outcome:

Curriculum	Instruction
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<ul style="list-style-type: none"> <li>✓ <i>Incorporate "low-stakes" writing assignments that ask students to find, evaluate, and use source material.</i></li> <li>✓ <i>Include a graded draft of the annotated bibliography for the final project.</i></li> </ul>	<ul style="list-style-type: none"> <li>✓ Provide additional instruction locating, using, and citing academic sources.</li> <li>✓ Offer more feedback and opportunity for revision.</li> </ul>
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University-level recommendations for improvement made by faculty include the following:

- ✓ Emphasize a university-level focus on the proper use of citations, including when a citation is needed.
- ✓ Provide training to all students in the use of library resources and reference databases early in the college career.

Although the benchmark was met for the direct assessment, feedback and recommendations from participating faculty indicate that additional focus on the use of source data in student writing at the course and university level is needed. Feedback from faculty emphasized the efficacy of prior modifications to pedagogy and assignments completed as a result of assessment. Examples of modifications include the use of scaffolded or step-based assignments and annotated bibliographies. Although findings were specific to courses and assignments, several themes emerged regarding what works well for helping students achieve this outcome and areas where additional focus is needed.

This outcome is closely related to RIT's Communication Student Learning Outcomes, especially *Demonstrate Comprehension of Information and Ideas Accessed through Reading*, also assessed in spring 2018. Faculty feedback from this assessment was also related to critical reading and analysis skills. RIT should consider looking at Communication and Critical Thinking outcomes holistically, especially when sharing results and determining the next steps.