Setting a Foundation for Critical Thinking in the First Year of College

Jennifer R. Keup

2016 AAC&U Annual Meeting Washington, DC







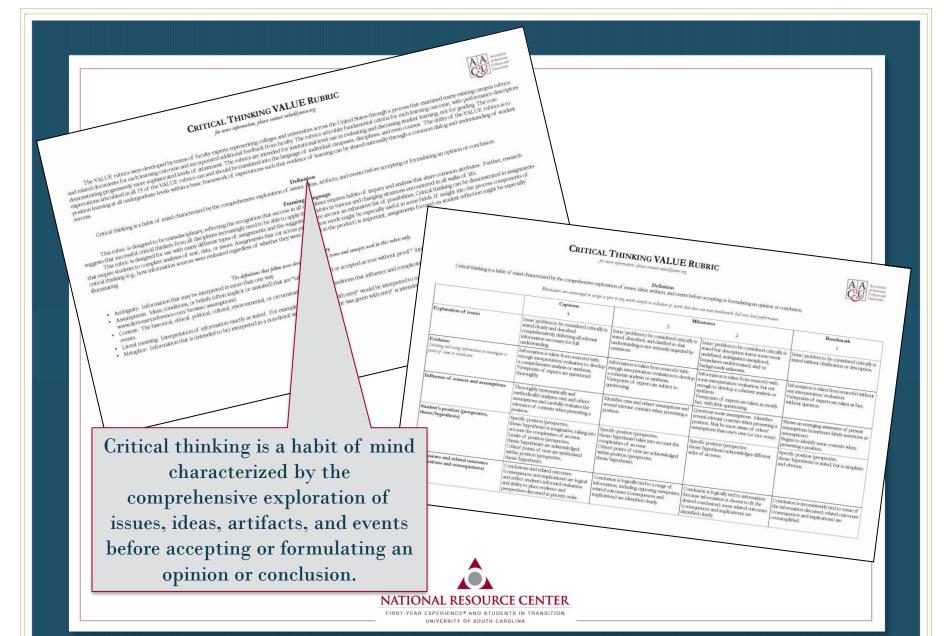
INTRODUCTION

"The human foot was not built for ballet. Only with discipline, training, and pain can it endure the strain and produce beauty. The human mind was not built for independent thinking. Only with discipline, training, and pain can it endure the strain and produce knowledge." (Daly, 2015)





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Building Blocks of Critical Thinking

- Knowledge base
- Information literacy
- Academic/study skills
- Research skills
- Writing and oral communication skills

- Self-efficacy
- Desire, drive, and motivation
- Challenging learning tasks and opportunities
- Learning and thinking strategies and support



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21st Century Learning Outcomes

- Knowledge of human cultures and the physical and natural world
- Intellectual and practical skills
- Personal and social responsibility
- Integrative learning





21st Century Learning Outcomes

- Intellectual and practical skills
 - Inquiry and analysis
 - Critical and creative thinking
 - Written and oral communication
 - Quantitative literacy
 - Information literacy
 - Teamwork and problem solving





Employability Metacompetencies

- Build & sustain working professional relationships
- Analyze, evaluate, & interpret data from various sources
- Engage in continuous learning
- Oral communication and persuasion
- Project planning and management
- Ability to create new knowledge
- Understand the impact of company practices in a global setting
- Build a successful team
- Coach, mentor, & develop others
- Initiative
 (P. Gardner, 2009, 2010)







Learning & Critical Thinking

"NCLB [Common Core] went into effect for the 2002-03 academic year, which means that America's public schools have been operating under the pressures and constrictions imposed by that law for a decade. Since the testing requirements were imposed beginning in third grade, the students arriving in your institution have been subject to the full extent of the law's requirements." (Bernstein, 2013)

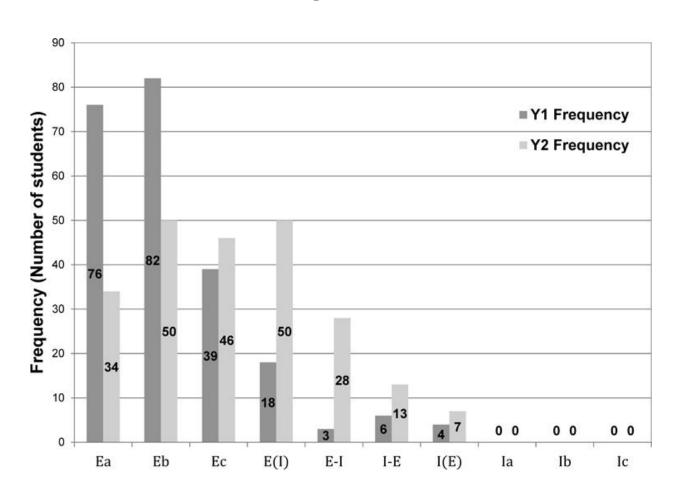


HS Learning & Critical Thinking

- Students arrive to HS with little instruction in subjects that aren't tested
- "Most tests being used consist primarily or solely of multiple choice items." Thus students arriving in HS lack "experience and knowledge about how to do the kinds of writing that are expected at higher levels of education."
- Grading rubrics are often concerned with content and not argument, which "works against development of the kinds of writing that would be expected in a true collegelevel course."

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First-Year to Sophomore: Developmental Milestone



Source of identity and meaning-making:

Ea-External voiceunquestioning

Eb-External voice-low tension

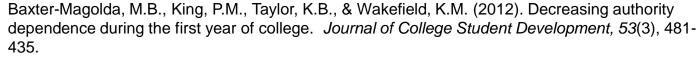
Ec-External voice-high tension

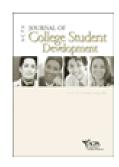
E(I)-External with awareness of internal

E-I or I-E: Balanced

I(E)-Internal with acknowledgement of external

I(a-c): External





High-Impact Educational Practices

Pirst-Year Seminars and Experiences

Many schools now build into the curriculum first-year seminars or other programs that bring small groups of students together with faculty or staff on a regular basis. The highest-quality first-year experiences place a strong emphasis on critical inquiry, frequent writing, information literacy, collaborative learning, and other skills that develop students' intellectual and practical competencies. First-year seminars can also involve students with cutting-edge questions in scholarship and with faculty members' own research

Commo. Intellectual Experiences

The older idea of a "core curriculum has evolved into a variety of modern forms, such as a set of required common courses or a vertically organized general education program that includes advanced integrative studies and/or required participation in a learning community (see below). These programs often combine broad themes—e.g., technology and society, global interdependence—with a variety of curricular and cocurricular options for students.

Learning Communities

The key goals for learning communities are to encourage integration of learning across courses and to involve students with "big questions" that matter beyond the classroom. Students take two or more linked courses as a group and work closely with one another and with their professors. Many learning communities explore a common topic and/or common readings through the lenses of different disciplines. Some deliberately link "liberal arts" and "professional courses"; others feature service learning.

Writing-Intensive Courses

These courses emphasize writing at all levels of instruction and across the curriculum, including final-year projects. Students are encouraged to produce and revise various forms of writing for different audiences in different disciplines. The effectiveness of this repeated practice "across the curriculum" has led to parallel efforts in such areas as quantitative reasoning, oral communication, information literacy, and, on some campuses, ethical inquiry.

Collaborative Assignments and Projects

Collaborative learning combines two key goals: learning to work and solve problems in the company of others, and sharpening one's own understanding by listening seriously to the insights of others, especially those with different backgrounds and life experiences. Approaches range from study groups within a course, to team-based assignments and writing, to cooperative projects and research.



Undergraduate Research

Many colleges and universities are now providing research experiences for students in all disciplines. Undergraduate research, however, has been most prominently used in science disciplines. With strong support from the National Science Foundation and the research community, scientists are reshaping their courses to connect key concepts and questions with students' early and active involvement in systematic investigation and research. The goal is to involve students with actively contested questions, empirical observation, cutting-edge technologies, and the sense of excitement that comes from working to answer important questions.

Diversity/Global Learning

Many colleges and universities now emphasize courses and programs that help students explore cultures, life experiences, and worldviews different from their own. These studies—which may address U.S. diversity, world cultures, or both—often explore "difficult differences" such as racial, ethnic, and gender inequality, or continuing struggles around the globe for human rights, freedom, and power. Frequently, intercultural studies are augmented by experiential learning in the community and/or by study abroad.

Service Learning, Community-Based Learning

In these programs, field-based "experiential learning" with community partners is an instructional strategy—and often a required part of the course. The idea is to give students direct experience with issues they are studying in the curriculum and with ongoing efforts to analyze and solve problems in the community. A key element in these programs is the opportunity students have to both apply what they are learning in real-world settings and reflect in a classroom setting on their service experiences. These programs model the idea that giving something back to the community is an important college outcome, and that working with community partners is good preparation for citizenship, work, and life.

Internships

Internships are another increasingly common form of experiential learning. The idea is to provide students with direct experience in a work setting—usually related to their career interests—and to give them the benefit of supervision and coaching from professionals in the field. If the internship is taken for course credit, students complete a project or paper that is approved by a faculty member.

Capstone Courses and Projects

Whether they're called "senior capstones" or some other name, these culminating experiences require students nearing the end of their college years to create a project of some sort that integrates and applies what they've learned. The project might be a research paper, a performance, a portfolio of "best work," or an exhibit of artwork. Capstones are offered both in departmental programs and, increasingly, in general education as well.



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FYS as High-Impact Practice

First-Year Seminars and Experiences

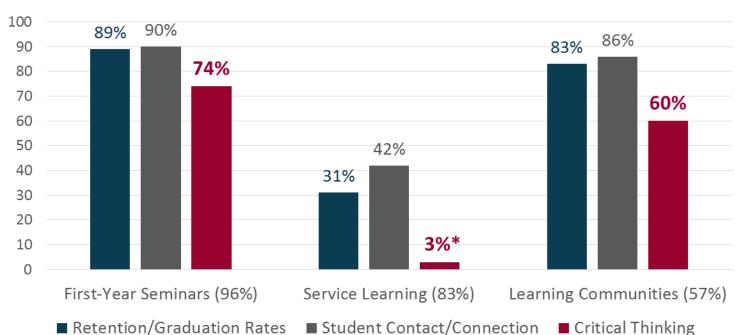
"Many schools now build into the curriculum first-year seminars or other programs that bring small groups of students together with faculty or staff on a regular basis. The highest-quality first-year experiences place a strong emphasis on critical inquiry, frequent writing, information literacy, collaborative learning, and other skills that develop students' intellectual and practical competencies. First-year seminars can also involve students with cutting-edge questions in scholarship and with faculty members' own research."



High-Impact

Critical Thinking as a Goal

Goals for HIPs





Enhancing Student Success and Retention

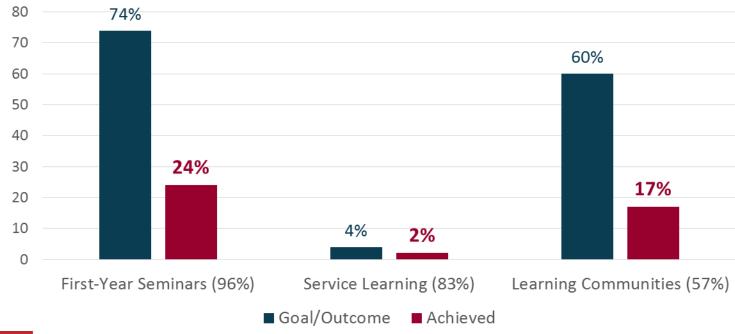


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Throughout Undergraduate Education

Critical Thinking as an Outcome







Enhancing Student Success and Retention



Throughout Undergraduate Education

NATIONAL SURVEY OF FIRST-YEAR SEMINARS





2012-2013 National Survey of First-Year Seminars

- Ninth triennial administration of the NSFYS
- Online instrument
 - Types of first-year seminars (FYS)
 - Seminar features
 - Student characteristics
 - Instructional characteristics
 - Administration
 - Assessment
 - Module on HIPs



national resource center

RST-YEAR EXPERIENCE® AND STUDENTS IN TRANSIT

2012-2013 National Survey of First-Year Seminars

- 3,753 <u>institutions</u> were invited to participate
 - 4 waves: CAO, CEO, CSAO, 2009 participants
 - Administered from Nov., 2012-Jan., 2013
- 896 campuses responded (23.9% response rate)
- 804 (89.7% of sample) indicated that they had one or more FYS



Defining First-Year Seminars

A course designed to "assist students in their academic and social development and in their transition to college. A seminar, by definition, is a small discussion-based course in which students and their instructors exchange ideas and information. In most cases, there is a strong emphasis on creating community in the classroom."

Hunter & Linder, 2005

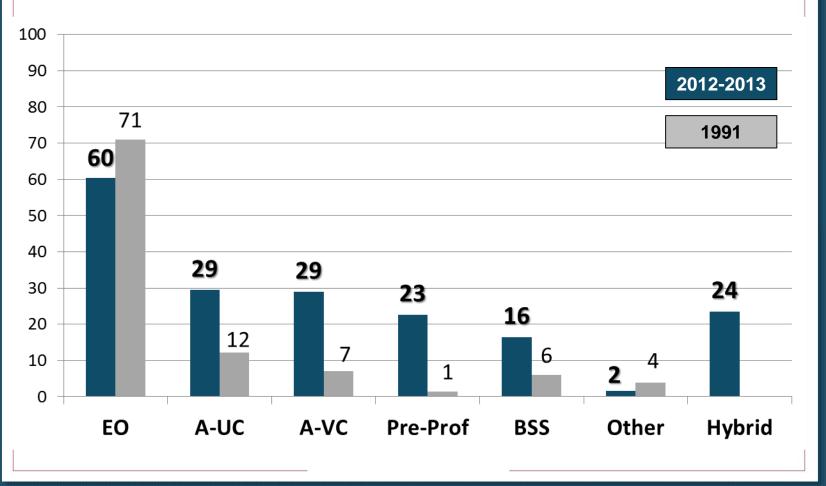


Types of First-Year Seminars

- Extended orientation seminars
- Academic seminars with generally uniform content
- Academic seminars on various topics
- Professional or discipline-based seminars
- Basic study skills seminars
- Hybrid seminars







Most Important Objectives

Objective	Percentage
Develop a connection with the institution	44.9
Provide orientation to campus resources & services	37.8
Develop academic skills	36.3
Develop critical thinking skills	23.3
Create common first-year experience	21.6
Develop study skills	20.0
Self-exploration or personal development	17.0
Develop support network or friendships	14.5
Improve second-year return rates	14.5
Increase student-faculty interaction	12.4
Develop writing skills	11.6

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Self-exploration or perso	Critical thinking is reported a objective more frequently	
Develop support networ	• Four-Year Institutions	
Improve second-year ret	 Private Institutions 	
Increase student-faculty	Academic (VC) FYS	
Develop writing skills		11.6

First-Year Seminar Instruction

Most Important Course Topics	%
Campus resources	35.7
Academic planning/advising	34.7
Critical thinking	32.6
Study skills	39.8
Campus engagement	27.7
Time management	22.6
Writing skills	17.3
Career exploration/preparation	17.1
Specific disciplinary topic	13.1
College policies and procedures	12.4
Information literacy	10.1

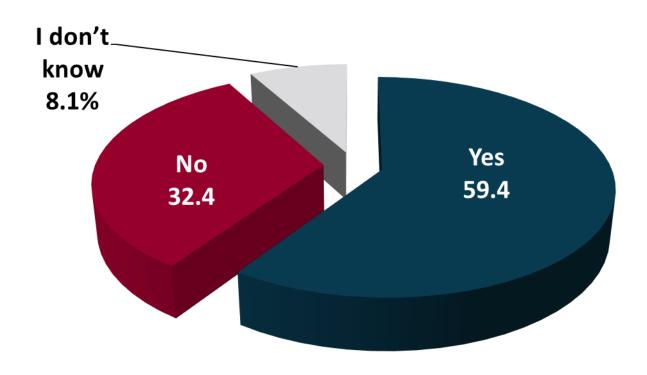
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Campus resources	35.7
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Critical thinking	32.6
Study skills	39.8
Campus engagement	27.7
Time management	22.6
Writing skills	Critical thinking is reported as a course topic more frequently among:
Career exploration/prep	
Specific disciplinary topi	Private Institutions
College policies and pro	 Academic-VC, Academic-UC, & Hybrid FYS
Information literacy	Trybrid 113

First-Year Seminar Instruction

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Campus resources	35.7
Acaden lanning/advi	34.7
Critical thin. "The course content in the first-	32.6
year seminar represented by	.0
Campus course objectives and topics are	27.7
Time mar Young & Hopp, 2014	16
Writing skills	17.3
Career exploration prep	17.1
Specific disciplinary topic	13.1
College policies and proce rures	12.4
Information literacy	10.1

First-Year Seminar Assessment





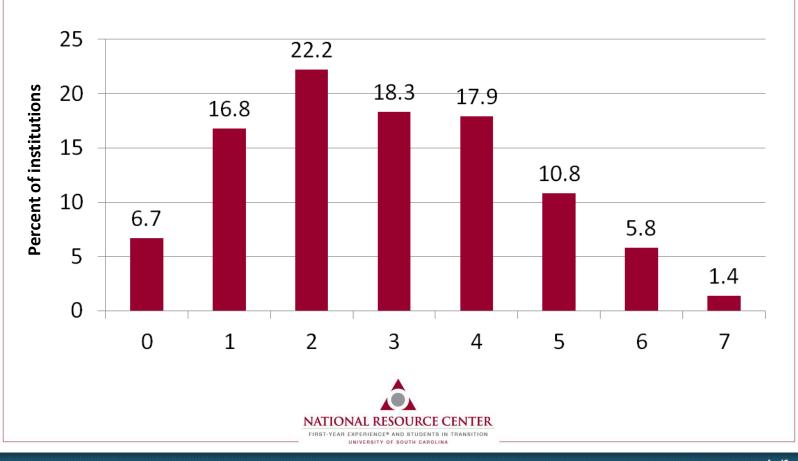
First-Year Seminar Assessment

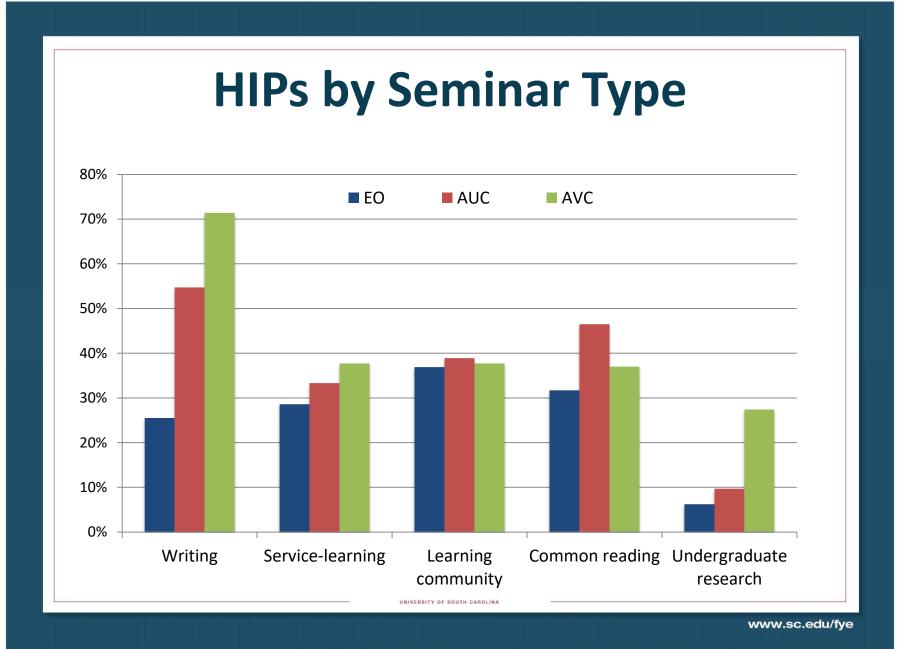
Outcome Measured	%
Satisfaction with the seminar	75.9
Achievement of learning/course outcomes	68.9
Persistence to second year	58.4
Satisfaction with faculty	52.7
Student self-reports of course impact	49.3
Grade point average	39.5
Critical thinking	36.6
Connections with peers	36.1
Participation in campus activities	34.8
Satisfaction with the institution	32.7
Information literacy	23.6
Writing ability	23.0

First-Year Seminar Assessment

Type of Assessment	%
Student course evaluation	86.9
Analysis of institutional data	71.2
Survey instrument	53.4
Direct assessment of student learning outcomes	52.9
Focus groups with instructors	35.4
Program review	33.3
Focus groups with students	30.6
Individual interviews with instructors	20.0
Individual interviews with students	12.4

Number of HIPs Offered in the FYS





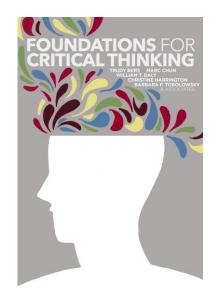
Specific HIPs in the FYS

High-Impact Practice in the FYS	%
Collaborative assignments & projects	67.2
Diversity/Global learning	58.8
Writing-intensive	42.5
Common reading experience	38.1
Learning community	36.8
Service-learning	31.8
Undergraduate research	12.8









CASE STUDIES: CRITICAL THINKING IN THE FIRST YEAR



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Institution



- Public, land-grant, research university in Blacksburg, VA
- Offers 70+ undergraduate degrees & minors, 76 master's degrees, and 62 doctoral & professional degrees
- 5,000 first-year students
- 75% or FY students enter with a declared major
- Have FYE programs (loosely coupled)





Pathways to Success



"To create a more unified FYE that balances the needs of the students with recognized best practices in FY programming & an emphasis on learning outcomes that promote critical thinking and life long learning, the University created the Pathways to Success program."





Pathways to Success

- 8 different programs represent first-year seminars embedded in the academic units
- More than 2/3 of FY students participate
- All focus on 3 "antecedent skills" to CT (AAC&U)
 - Inquiry (Information literacy)*
 - Problem solving
 - Integration
- Collaboration between faculty & librarians
- Research project



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Pathways Assessment



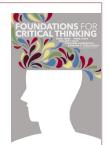
- "Assessment for improvement"
- Mixed-methods approach
 - Quantitative
 - Pre/post information literacy test
 - Results: increase in ILT scores within and between cohorts
 - Qualitative
 - Team-based evaluation of students' reflective writing as "novice," "practitioner," and "expert"
 - Results: Generally at the "practitioner" level
- Student assessments yielded "significant actionable data for the Pathways Program"

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INIVERSITY OF SOUTH CAROLINA



Institution



- Public, four-year, regional, comprehensive university; system campus in USC system
- Offers 47 baccalaureate and master's degrees
- 625 first-year students
- 27% students are first-generation
- High of students who enter needing dev ed/SI work in English, math, and writing
- Have a strong FYE program





AFCI 101: Think DEEP



- Required, 1-credit, critical-inquiry FY seminar
- "Cornerstone" of USCA QEP for SACS
- Each section is taught by a FT faculty member
- No discipline/major specific sections
- First-year common read is a text for all sections
- Faculty members are expected to integrate active learning and pedagogy that advances CT
- Faculty development workshop



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AFCI 101: Think DEEP



"In addition...all sections include the following shared course requirements: (a) a common critical-inquiry process or framework; (b) information literacy delivered through a common instructional session and assignment; and (c) multiple opportunities for personal reflection...to promote deeper, more integrative thinking and learning."





AFCI 101 Assessment



- Focused on student learning outcomes
- ETS Proficiency Profile
- Critical-inquiry portfolio
 - Provides evidence or artifacts from a course project
 - Information from the common info lit assignment
 - Reflective essay
- Assessment metrics showed reasonable gains for FY students
- Used to inform faculty development initiatives

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Key Takeaways

- FYE and FYS can provide meaningful scaffolding for critical thinking development
- Knowledge, information literacy, written/oral communication, research skills are building blocks of critical thinking
- Course content must align with CT outcomes & assessment activities
- Effective assessment of FY CT is complex but KEY
- There is room for institution-specific methods
- CT Definition



Questions? Comments?

Jennifer R. Keup

keupj@mailbox.sc.edu

803-777-2570

Twitter: @jrkeup

www.sc.edu/fye

