Developing a Campus-Wide Information Literacy Agenda

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I am the opening act – set the agenda… hit the highlights of what you will be exploring in the breakout sessions over the next two days.. Yes, I am on the information literacy side of the house.. And carol is on the critical thinking – and we each selected our mentors from our respective spheres of criticla thinking and information literacy – but when Carol and I were invited by WASC to develop this institute, we both agreed right away that we cannot separate critical thinking from information literacy and chose to try to integrate our work.. information literacy learning outcomes cannot be independently developed – there is a significant degree of overlap
with critical thinking – and even with other related intellectual skills that also need to be integrated across the curriculum such as oral and written communication.

These two days will focus on how critical thinking and information literacy are part of broader changes in the curriculum in how we identify, embed, assess, gather data, and continuously improve student learning – in courses, in curricula (lower and upper division) and in co-curricula learning environments.
This requires that institutions determine the level of performance expected by your students at exit…
And gather evidence that they did

Info lit learning outcomes… what they look like.. what are they – specifically
Determine how to measure – selecting rubrics that have the criteria YOU want for your campus — and training for inter rater reliability
Or selecting a standardized test – hopefully first investigating what rubric is used by the test– what specifically the test assessing to ensure it’s the learning outcomes you want
So the challenge is not to just articulate the outcomes in measurable ways, (the ACRL Standards did that 13 years ago) and the assessments that measure them.. but to also create a curricular pathway that ensures that the learning occurs, developmentally, and to gather evidence ALONG the way – so that there are no big surprises at the end…

Pose your questions now – in advance – for example …what tools are you going to use to gather evidence?

…for example… I can tell you the story about the school that used ISkills at exit for its students – only to find that most of the students performed well below mean in the national cohort…. Was a little late for them as they were in their capstone course ..made them relaize they needed to intentionally embed those learning outcomes in courses and do formative assessment..

What processes are in place at various points along the curriculum – both lower division and in the majors? …for example – I can tell you about the school that used a rubric to assess sample student work in the lower division gen ed – but that same school has program reviews that don’t include learning outcomes for these skills – they are mostly content based with a vague generic reference to “critical thinking: need to connect to major..

Is there a connection between the outcomes and the measures? How about the learning activities?

..for example.. I can tell you about the school that had the outcomes clearly stated – and the rubric aligned as measuring the
outcomes.. And the faculty engaged in inter rater reliability testing to ensure that there was consistency in applying the rubric BUT when applied to a sample of over 600 students work in a freshman comp… a disconcertingly large number of the students had 0 on their rubric… why? Course had dozens of sections taught by grad students and part timers who were not involved in faculty development areas to design learning activities to specifically align with the learning outcomes..

How do you know that the tools you use to collect the evidence are measuring the outcomes you want? For example.. I can tell you about the school that is using CAAP as a standardized text for writing and critical thinking.. They profess to a commitment of information literacy learning outcomes – yet CAAP excludes a large number of information seeking skills that are part of info lit –40-minute test focus on skills in clarifying, analyzing, evaluating, and extending arguments by reading passages provided…

How are you using the results?

Is it just to satisfy WASC? Is it summative? …for example – let me tell you about the school that did random sampling at various points – end of FYE – end of gen ed – end of capstone - results used to inform curriculum for FYE and gen ed –summative at program level that’s ok – and individual students benefit from the continuous improvement – but the process is not focused on individual student improvement..

what are you doing with what you learn to improve student learning?
For example – I can tell you about the school that uses ISkills as a diagnostic at entrance – and then has special tutoring in place for students who perform below a specific level in any of the seven areas of the individual report received: sections…Define, access, evaluate, manage, integrate, create, communicate
Basically - in order to develop a comprehensive assessment plan – one of the basic components is the alignment of the learning outcomes with the assessments… and then with the learning activities – and generally we think about it at the course level –
but we need to plan for the entire student experience.

How are we articulating embedding and gathering evidence through the library experiences, the courses, the program, and then at the institutional level? I remember the President of AACU once telling me that not enough focus is paid at exit – the capstone --- and WASC says the same – what is the evidence of achievement at graduation

From the project statements I read a variety of challenges – many fell into the category of gathering evidence in specific places but not in others -- some of you only assess info lit from within the libraries….and are here to figure out how to integrate with critical thinking in more robust assessment methodologies..– some have a core course in gen ed to introduce ct and il – and are struggling with linking these skills to the major

And we ALL know that it can’t be done just at the end of the curriculum. How many of you have seen those students who are writing their first research paper in their senior year? Who haven’t been required to write anything requiring “library research” since their freshmen comp “positions” paper and then the faculty in the majors complain about their ability to write a paper in the major in their senior year because they are citing google and wikipedia…

**I do a breakout on a integration of the three at the course level** – but there is also a breakout about alignment at program level
And while we may be focusing on articulation, embedding, and assessment at
the beginning middle and end of the student experience – there are a host of
issues associated with the process

…. what about the co-curricular? What about the challenge of faculty buy in?
What about the challenge of faculty teaching methods. What about student
motivation and how we engage them in their own learning – to see the
relevance and importance of integrating these skills with their discipline?

So allow me to share one more model of the pieces of this puzzle – and how
our assessment plans need to be comprehensive to address the parts of the
pieces:

My model is a building -- the roof of my structure is what the student should
know when they leave us — content knowledge, skills and abilities, behaviors
and attitudes.. (in this case essential learning outcomes from AAC&U but could
also be the core competencies from wasc)  
[how many of you have articulated learning outcomes for the institution – how many of them are specific enough to measure – how many of them are embedded in the disciplines – how many of them are at the beginning, middle and end…?]

Every institution needs to start with a clear articulation of the learning
outcomes desired – whether you use the frame offered by AACU or WASC or
DQP or Common Core… you have four clusters of learning outcomes that
need to be described in measurable ways for your institution… I am an
advocate for the learning outcomes articulated by ACRL – but I believe we
need to be mindful of campus culture issues and that no external cluster of
learning outcomes is EVER going to be adopted wholesale – they serve as a
starting place for campus conversations – and I will talk a bit about that in a
minute

But the foundation for student learning is engagement-- engaging students in
educational experiences that motivate them -- rooted in practices that research has shown lead to higher levels of student motivation and learning.. (such as first year experiences, service learning, undergraduate research, internships, etc)

Motivating students through a curriculum that provides a coherent pathway with milestone markers for the students to assess for themselves how they are doing – with learning outcomes clearly articulated in the first year – in the middle – and at the end -- basically “what we teach”

But what we teach is not enough for students to develop critical thinking and information literacy – its also how we teach -- How students are inspired and engaged through learning strategies designed to encourage their passion and curiosity – teaching methods that are student centered – active, reflective, – rooted in real life. Courses that align those learning outcomes with activities and assessments so that if a faculty member says they want students in their course to have specific information literacy skills – what are they? What is reasonable within a course? What activities and assignments will support their development? What assessments are applied to measure their achievement?

And then the importance of engaging students to take steps for their own development through experiences available external to the curriculum – but intentionally linked to it through campus collaborations.

This image is a reminder of the complex framework for learning
that extends far beyond the content of the course. And that no single column or even two – can support the end result ...

Libraries have a role in all areas – in the curricular through course integration of learning outcomes – in the faculty – through helping faculty design assignments that place library collections and information literacy at the heart of student learning – through the co-curricular – the real and virtual places we create for students to learn independently – or with us – outside of the classroom.

But so do other academic partners on campus. A couple breakout sessions address them..
What learning outcomes?

While it is crucially important that we increase the number of Americans who hold postsecondary degrees and credentials, there is an equally urgent national need for all college students to graduate with the learning outcomes they need for success in today’s volatile economy and for the exercise of responsible citizenship in a globally interconnected democracy. Unfortunately, there is abundant evidence that many students who actually complete college fall short on essential capacities that they will need in all spheres of life—including such key skills as written and oral communication, analytical reasoning, quantitative fluency, information assessment, and problem solving. College graduates also fall short, in many instances, on global, civic, and science literacy.

…Carol Schneider, President, Association of American Colleges and Universities, May 2011 to the US Dept of Education

So what learning outcomes are we talking about? WASC is far from alone in singling out the four areas of competencies – oral and written communication, info lit and critical thinking – this is a recent quote from the President of AAC&U in a statement to the US Dept of Education on the topic of performance based funding… info lit front and center.

Lots of models to draw upon for information literacy -- important thing for YOU –is to be sure you have them defined for your campus – in specific measurable ways – in ways that resonate with the culture of your campus and your faculty…

Fundamentally about finding, evaluating and using information to create a product
Doesn’t matter how they are labeled
These are a few of the 122 learning outcomes that are part of info lit competency standards for higher education…

And as you can see – there is substantial inclusion of critical thinking
• develops a thesis statement and formulates questions...

• identifies the value and differences of potential resources...

• constructs and implements effectively designed search strategies...

• articulates and applies criteria for evaluating information and sources...

• summarizes main ideas, synthesizes to construct new concepts, compares new knowledge with prior...

• applies new and prior information to the planning and creation of a product
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• identifies the value and differences of potential resources...
• constructs and implements effectively designed search strategies...
• articulates and applies criteria for evaluating information and sources...
• summarizes main ideas, synthesizes to construct new concepts, compares new knowledge with prior...
• applies new and prior information to the planning and creation of a product

and communication in information literacy.
Certain familiar qualities of mind and habits of thought may help resolve a wide range of problems ...every student would benefit from acquiring them...

- recognize and define problems clearly
- identify the arguments and interests on all sides of an issue
- gather relevant facts and appreciate their relevance
- perceive as many plausible solutions as possible
- exercise good judgment in choosing the best of these alternatives after considering the evidence and using inference, analogy, and other forms of ordinary reasoning to test the cogency of the arguments


Back in 2006 – Derek Bok – President emeritus Harvard…made this statement – I can’t tell if its about information literacy or critical thinking – label is irrelevant – it describes a set of outcomes that we are talking about.. And perhaps provides a frame that would resonate on your campus…
Since the standards came out in 2000 -- other major initiatives are calling for articulation and assessment of learning outcomes that look a lot like information literacy and critical thinking..

Sound familiar?
Lumina Degree Qualifications Profile (DQP)

Identifies, categorizes, evaluates and cites multiple information resources necessary to engage in projects, papers or performance in his or her program.

Incorporates multiple information resources presented in different media and/or different languages, in projects, papers or performances, with citations in forms appropriate to those resources, and evaluates the reliability and comparative worth of competing information resources.

Explicates the ideal characteristics of current information resources for the execution of projects, papers or performances; accesses those resources with appropriate delimiting terms and syntax; and describes the strategies by which he/she identified and searched for those resources.

And most recently from this important work – you have in your reading packet an issue of Focus from Lumina that is all about this important report – and WASC has a three year pilot project underway with institutions applying the DQP
And finally – I know that some of you are still trying to find the framework to articulate info lit for your campus – so I am also sharing another popular framework for info lit comes from a colleague in Australia –

She presents seven faces…. 

The structure of awareness as experienced in the information technology conception 

Information literacy is seen as using information technology for information retrieval and communication.

major roles of technology is to make that information accessible, or to bring it into awareness. Technology also
plays a vital role in allowing the information user to stay informed and to manipulate information that has been located. In this sense the relation between people and information may be described in terms of depending upon technology to enhance access to information.
The structure of awareness as experienced in the information sources conception

*Information literacy is seen as finding information located in information sources.*

It is knowledge of information sources which makes it possible to retrieve the information which is contained within them. The sources may be in a variety of media, including electronic. The sources may also be people.
The structure of awareness as experienced in the information process conception

*Information literacy is seen as executing a process.*

Information literacy is seen as the ability to confront novel situations, and to deal with those situations on the basis of being equipped with a process for finding and using the necessary information. The precise nature of the process, however, varies from person to person. Effective action, problem-solving or decision-making is the outcome of the experience.
The structure of awareness as experienced in the information control conception

*Information literacy is seen as controlling information*

Information organisation, in this context, is about storing information, usually documents, in a fashion which ensures easy retrieval. All the information is selected on the basis of its likely value for future use in research or teaching, for example. The primary concern of this conception is bringing resources under the controlling influence of the user.
The structure of awareness as experienced in the information use conception

*information literacy is seen as building up a personal knowledge base in a new area of interest.*

Critical information use, for the purpose of constructing a personal knowledge base, is the distinguishing feature of this conception.

The idea of a knowledge base in this category goes beyond that of a store of information; it involves the adoption of personal perspectives. This is achieved through critical analysis of what is read.
The structure of awareness as experienced in the information knowledge extension conception

*Information literacy is seen as working with knowledge and personal perspectives adopted in such a way that novel insights are gained.*

Information use, involving a capacity for intuition, or creative insight, is the distinguishing feature of this experience. Such intuition or insight usually results in the development of novel ideas or creative solutions.
The structure of awareness as experienced in the wisdom conception

*Information literacy is seen as using information wisely for the benefit of others.*

Using information wisely presupposes a consciousness of personal values, attitudes and beliefs. It involves placing the information in a larger context, and seeing it in the light of broader experience, for example, historically, temporarily, socio-culturally. When information is seen within a larger context and one’s own life experience it can then used in qualitatively different ways.
So find one resonates – and don’t worry about the labels – everyone does – and it’s a red herring..Here is an activity I like to use to both demonstrate the irrelevence of labels – and to underscore the importance of clear articulation of the learning outcome – and aligning it with the appropriate assessment tool…

As many of you note, faculty buy in is a challenge – but I say – start where they are… most faculty want their students to develop these abilities – you need to find the framework that works for the culture of your campus…

Just be sure what you ultimately measure is what you define and are teaching… or – what you are ultimately defining –
is what you are teaching and assessing…
The student…

* presents evidence in an order that contributes to a persuasive and coherent argument *

From Collegiate Learning Assessment - Common Scoring Rubric – Part 2 Written Communication

a. information literacy   b. critical thinking   c. communication
We are speaking the same language – but using different words.. And the biggest barrier is our own soapbox…

I have been talking to librarians about this for 20 years – we want info lit in the curr – across the curr – etc.. And we are not alone – the critical thinking community – the writing across the curriculum community – the oral communication experts – the multicultural learning professionals -- and then suddenly we have a curriculum stuffed with agendas – bits and pieces of very important content and approaches – but nonetheless often lacking integration .. Or worse – important parts get left out because classroom instructors say “enough” – no more credits added – no more class time on “add ons” -- I need room for my important content from the major…
Here is my teachable moment – my instructor cue – this is important…

However you define the outcomes – be sure your assessment is using the right language to measure it…

For example.. Here is some language from three of the VALUE rubrics developed for different areas: information literacy, written communication, and critical thinking…
Can be a great deal of overlap between writing and info lit as well – as with critical thinking.

Content Development (VALUE written communication rubric)

- uses appropriate, relevant, and compelling content to illustrate mastery of the subject, conveying the writer's understanding, and shaping the whole work.

  MILESTONE criteria….

- Uses appropriate and relevant content to develop simple ideas in some parts of the work
Sources and Evidence (VALUE written communication rubric)

- Demonstrates skillful use of high quality, credible, relevant sources to develop ideas that are appropriate for the discipline and genre of the writing.

  MILESTONE criteria….

- Demonstrates an attempt to use sources to support ideas in the writing.
Evidence (VALUE critical thinking rubric)
Selecting and using information to investigate a point of view or conclusion.

- Information is taken from source(s) with enough interpretation/evaluation to develop a comprehensive analysis or synthesis. Viewpoints of experts are questioned thoroughly.

  MILESTONE criteria…. 

- Information is taken from source(s) without any interpretation/evaluation. Viewpoints of experts are taken as fact, without question.
And speaking of red herrings – I was asked to address the question about the ACRL standards revision. I don’t want to go on – I have a specific position – I just wrote a perspectives piece in Communications in Information Literacy. These are the recommendations and the direction they are going. I don’t support the current direction…

Time for redefining is over – lots of models out there - 13 years ago if I were to give this presentation I would have one frame --- the standards – since then we have had AACU, DQP, Common Core, and others… I believe that a refocussing on definitions is a red herring – the real challenge is having tools to help institutions like yours embed them developmentally – beginning middle and end – with corresponding rubrics and standardized performance based tests.
So that’s all I want to say now about the learning outcomes. You have the ACRL ones – you have many other models labeled different things that look like info lit… as you define what they are for your institution… hook onto the culture – the language – the values of your unique campus identity -- think about the assessments you are going to use… whether standardized test or rubrics or combinations of assessments to yield evidence from different places…
WASC allows you to use assessment method of choice

- **Assessment for Learning**
  - ongoing, diagnostic, formative
- **Assessment as Learning**
  - actively involves students in their own assessment
- **Assessment of Learning**
  - summative assessment at end of a period of time
What assessments are available? So everyone is looking for the silver bullet... can we just test for information literacy? And if you do, what data does it yield and what do you do with the results?

This is from a wonderful article by Megan on the dangers and opportunities in approaches for both fixed choice and performance based assessments...
Here is why you need to assess cognitively complex outcomes – Info lit is about more than library skills – and its about more than reading texts to analyze the logic of the argument… As you investigate standardized instruments, keep in mind that information literacy outcomes range from simple to complex on Bloom’s taxonomy.. This is very important because of implications for assessing them ---- both info lit and critical thinking include large portions of higher order thinking skills which are extremely difficult to measure by fixed choice tests..
Another example – related to technology
### Standardized Tests

- SAILS (and other fixed choice library instruction)
- ISkills (performance)
- CAAP (fixed choice)
- CLA (performance)
- CATalyst for Change (NSF) (performance)

And “standardized tests” are varied – some are fixed choice and some are performance, and some are mixed..

Here are a few that I have selected to highlight – and I expect you will learn more about others from my colleagues..

We probably all have opinions based upon our experiences.. I will share some of my own..

SAILS – not info lit – lib instruction.. Multiple choice – stripped out all higher order… - otherwise
excellent instrument – valid and reliable -- I think this is a good test to use if multiple assessments are being used and there are rubrics or other instruments in place to assess the higher order skills

ISKills

Performance based, not multiple choice; interactive tasks that are real time, scenario based, and use simulated technology [Web search engines, databases, emails, spreadsheet, presentation slides]

provides a variety of reports (including comparison)

evaluates critical thinking in the digital environment with scores in seven sections…Define, access, evaluate, manage, integrate, create, communicate

CAAP Critical thinking test - 40-minute test that measures students' skills in clarifying, analyzing, evaluating, and extending arguments.. Each passage is accompanied by a set of multiple-choice test items. A total score is provided for the Critical Thinking Test; no subscores are provided…

32 multiple choice..based on passages read..
Analysis of elements of an argument -- .53–.66 -17–21 items
Evaluation of an argument --.16–.28  5–9 items
Extension of an argument .. .19  6 items

CLA -- According to the common scoring rubric for CLA, CLA does not cover outcomes defined in ISkills as defining and accessing information – specifically articulate a need for information that defines a hypothesis or problem in operational terms, develop and apply a systematic strategy for ethically and legally finding, retrieving, and sorting information from a variety of relevant resources, representing a wide range of perspectives, acknowledging sources appropriately

CAT  train trainer – faculty teams to score – labor intensive  - difficult to scale
According to the common scoring rubric for CLA, CLA does not cover outcomes defined in ISkills as defining and accessing information – specifically articulate a need for information that defines a hypothesis or problem in operational terms, develop and apply a systematic strategy for ethically and legally finding, retrieving, and sorting information from a variety of relevant resources, representing a wide range of perspectives, acknowledging sources appropriately.

And info lit does not address the craft of writing..
Lets talk a little bit about rubrics – there are three major sources for info lit and related rubrics.

VALUE rubrics -- institutional, RAILS

Rubric Norming Process – from RAILS
1. Think aloud through scoring several examples.
2. Ask raters to independently score a set of examples that reflects the range of services libraries produce.
3. Bring raters together to review their scores to identify patterns of consistent and inconsistent scores.
4. Discuss and then reconcile inconsistent scores.
5. Repeat the process of independent scoring on a new set of examples.
6. Again, bring all raters together to review their scores to identify patterns of consistent and inconsistent scores.

7. Discuss and then reconcile inconsistent scores. This process is repeated until raters reach consensus about applying the scoring rubric. Ordinarily, two to three of these sessions calibrate raters’ responses.
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<td>Identifies Keyword</td>
<td>Student identifies keywords in complex relationships with each other.</td>
<td>Student identifies keywords and related terms or synonyms.</td>
<td>Student identifies keywords.</td>
<td>Student does not identify keywords.</td>
</tr>
<tr>
<td>Cites Sources</td>
<td>Student cites sources in a specific or required citation style with few errors.</td>
<td>Student cites sources in a specific or required citation style with multiple errors.</td>
<td>Student cites sources incompletely and/or not in adherence with a specific or required citation style.</td>
<td>Student does not cite sources.</td>
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<tr>
<td>Identifies Types of Information</td>
<td>Student identifies multiple information source types to search for that are relevant to their research need.</td>
<td>Student identifies at least one information source type to search for that is relevant to their research need.</td>
<td>Student identifies information source types to search for, but none are relevant to the research need.</td>
<td>Student does not identify information source types to search for.</td>
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Remember this? Beginning middle and end…
I am going to share a model of curriculum reform that intentionally developed a beginning middle and end as part of gen ed reform – it is the model advocated by AACU — and one of the breakout sessions has you working to develop your own version of it…

It starts with the articulation of university undergraduate learning outcomes --

- Intellectual Breadth and Lifelong Learning
- Inquiry and Critical Thinking
- Communication
- Global/Multicultural Knowledge and Awareness
- Citizenship and Ethics
The interesting thing about this proposal is that this set of learning outcomes is important for ALL graduates – recognizing that they cannot be learned in a single course in the core -- this model provides an opportunity for expanding these important learning outcomes into the majors and into professional education

The proposed model shows a pathway for students that starts with a first year experience course that wraps the learning outcomes with specific content as developed by the department or the college...

The learning outcomes are reinforced through a second year experience – housed in the colleges -- and intentionally embedded in a “milestone” course – the required core course in a major – and ultimately demonstrated through a culminating experience...

The model also clarifies expectations for our students

Proposes structure for transfer students
Back to this model – only did the one column… how many of us are challenged by faculty buy in?

Not just about what we teach – but how we teach…
How do you plan to use the process of integrated course design?
I will be introducing you to Dee Fink’s Integrated Course Design model – emphasis on course. I have worked with Dee for many years – partnered with him at AACU retreats – adjusted his model to bring in librarians and other partners – your selected reading list references an entire issue of .. with articles written by faculty across the disciplines who have used this model.

Builds on my work at UC Berkeley where I received 2 grants totaling $888,000 to design faculty institutes on course redesign. This is a 2-3 day immersive experience for faculty… the experience is transformational for many – and as you can see from the model – it starts with a look at the situational factors – the students, the institution, the instructors. And then the writing of measurable learning outcomes – and aligning learning activities with those outcomes – and ensuring assessment of those outcomes and those activities…
One other key piece of his model is this taxonomy for learning goals. Most are most comfortable in foundational knowledge area, but this model provides a frame for faculty to compare their own course goals to see if they have them in various areas of the taxonomy with an expectation of learning outcomes with corresponding activities and assessments in other areas...such as critical thinking and learning how to learn, and developing feelings or passion for the subject matter.
Finally – the last pillar of my temple for student learning is the co-curricular environment… how do assess the value added from these experiences that happen external to the curriculum.

We also have a breakout on this topic – so I am not going to belabor the point.
I am going to close by reiterating that while there are many moving parts to the overall assessment framework you are trying to create – this is a wonderful resource to help you think through your plan and find some tools to apply locally.

There are many resources to help. You are each here with a specific organizational challenge – and I believe there is something in each of the breakouts that can address your specific need. But please also take advantage of the unique skill sets and experiences of our mentors. They are here to listen to your campus need – to diagnose – and to share some practical applications that could help you move forward…