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Article

Exploring the Complexity of Student Learning Outcome Assessment Practices Across Multiple Libraries

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Abstract

Objectives – The purpose of this collaborative qualitative research project, initiated by the Greater Western Library Alliance (GWLA), was to explore how librarians were involved in the designing, implementing, assessing, and disseminating student learning outcomes (SLOs) in GWLA member academic libraries. The original objective of the research was to identify library evaluation/assessment practices at the different libraries to share and discuss by consortia members at a GWLA-sponsored Student Learning Assessment Symposium in 2013. However, findings raised new questions and areas to explore beyond student learning assessment, and additional research was continued by two of the GWLA collaborators after the Symposium. The purpose of this second phase of research was to explore the intersection of library and institutional contexts and academic library assessment practices.

Methods – This qualitative research study involved a survey of librarians at 23 GWLA member libraries, about student learning assessment practices at their institutions. Twenty follow-up

interviews were also conducted to further describe and detail the assessment practices identified in the survey. Librarians with expertise in library instruction, assessment, and evaluation, either volunteered or were designated by their Dean or Director, to respond to the survey and participate in the interviews. Interview data were analyzed by seven librarians, across six different GWLA libraries, using constant comparison methods (Strauss & Corbin, 2014). Emerging themes were used to plan a GWLA member Symposium. Based on unexpected findings, after the Symposium, two GWLA researchers continued the analysis using a grounded theory methodology to re-examine the data and uncover categorical relationships and conceptual coding, and to explore data alignment to theoretical possibilities.

Results – Seventeen categories and five themes emerged from the interview data and were used to create a 3-part framework for describing and explaining library SLO assessment practices. The themes were used to plan the GWLA Assessment Symposium. Through additional qualitative grounded theory data analysis, researchers also identified a core variable, and data were re-evaluated to verify an alignment to Engeström's Activity and Expansion Theories (Engeström, 2001, 2004).

Conclusions – The findings of this multi-phased qualitative study discovered how contextual, structural, and organizational factors can influence how libraries interact and communicate with college departments, and the larger institution about student learning outcomes and assessment. Viewing library and campus interaction through the activity theory lens can demonstrate how particular factors might influence library collaboration and interaction on campuses. *Institutional contexts and cultures, campus-wide academic priorities, leadership at the library level,* and *changing roles of librarians* were all themes that emerged from this study that are important factors to consider when planning the design, implementation, assessment and dissemination of library SLOs.

Introduction

The purpose of this research was to uncover the various types of student learning outcomes and assessment practices at GWLA member academic libraries. Themes identified from research data were then used to organize and plan a symposium focused on student learning outcomes assessment. Questions that emerged from the survey and interview findings also prompted a need for additional research to uncover relationships between institutional and library culture with assessment practices. Therefore, this paper will present the methods, results and findings from Phase 1 of the research, the pre-symposium survey and interview data analysis, as well as the additional Phase 2 post-symposium grounded theory analysis. Finally, findings from the grounded theory analysis will be used to present three

different institutional profile vignettes as examples of how activity theory might be utilized to rethink library-institutional interactions.

A charge from the Greater Western Library Alliance (GWLA) formed the Student Learning Outcomes (SLO) Taskforce Committee to investigate learning assessment practices at GWLA member libraries and how academic libraries are impacting student learning outcomes assessment. A qualitative research approach was selected for this study because it was the best method for gathering rich and descriptive information about student learning outcome assessment practices. Members of the taskforce worked on subcommittees to create the survey, implement the survey, design the interview protocol, conduct the interviews and analyze the interview data. The taskforce membership included library representatives

from eleven institutions: Arizona State University, Brigham Young University, Texas Tech University, University of Arizona, University of Colorado-Boulder, University of Houston, University of Illinois Chicago, University of Kansas, University of Missouri, University of Nevada Las Vegas, and University of Utah.

This paper outlines the processes and findings for this collaborative qualitative research project. Initially, representatives from 23 institutions were surveyed. From the survey, representatives from 20 GWLA academic libraries volunteered to be interviewed about the assessment practices in their library, as well as, campus assessment practices at the institution and department/college levels. Analysis of interviews resulted in themes and related categories and in the development of a conceptual framework. This framework was used to design a three-day GWLA Student Learning Assessment Symposium (GWLA, 2013). Going beyond that analysis, two librarians continued to re-examine data using a more rigorous grounded theory process to uncover a core variable and generate theory that can be used to guide library reflection and analysis at any institution.

Literature Review

The library value movement posits that in the current environment, connecting library services with institutional priorities to demonstrate library impacts results in increasing library relevancy (Kaufman & Watstein, 2008; Menchaca, 2014; Oakleaf, 2010; Pritchard, 1996). In the seminal work on library value, multiple approaches for academic libraries to develop institutional relevance are identified. Developing and assessing student learning outcomes is just one option identified for demonstrating library value in relation to student learning (Oakleaf, 2010; Hiller, Kyrillidou & Self, 2006; Pan, Ignacio, Ferrer-Vinent & Bruehl, 2014). Published evidence of library impact on student learning has been

historically disconnected from institutional outcomes, and generally focuses on individual librarian/faculty collaboration, rather than programmatic approaches (Oakleaf, 2011). Hufford (2013) contends, in a 2005-2011 review of the library assessment literature, that, while traditional library inputs and output measurements remain valuable, libraries are increasingly focusing on institutional priorities and assessing student-learning outcomes programmatically, to uncover institutional impacts.

As the library value literature indicates, it is also important to investigate higher education change and organizational development issues more broadly (Barth, 2013; Kezar, 2009). Economic, social, technological, and cultural issues are currently emerging and driving change in new directions on many campuses (Altbach, Gumport & Berdahl, 2011; Kezar & Eckel, 2002; Kyrillidou, 2005). There are calls for transformational change (Eckel & Kezar, 2003), encouragement for 'disruptive' education tools (Christensen & Eyring, 2011), and a reinvention of the college experience (Hu, Scheuch, Schwartz, Gayles, & Li, 2008). In addition, findings from Phase 1 of this study identify a need for investigating how higher education contextual and organizational structures are influencing how libraries are changing and functioning on campuses. One theory, Activity Theory (Engeström, 2001, 2004; Engeström, Miettinen, & Punamäki, 1999), aligns well with the emerging library literature and the higher education change literature, as well as the results from this study. This Activity Theory framework, grounded in the seminal constructivist theory of Vygotsky (Roth & Lee, 2007; Vygotsky, 1980) has been utilized in many studies to theorize and describe a variety of work and learning environments or systems through the structure of goals and objects that include activity towards an object, tools, community structures, and rules (Figure 1). A second theory, Expansive Learning (Engeström, 2001, 2004), that is an extension of activity theory, focuses on the interactions and change
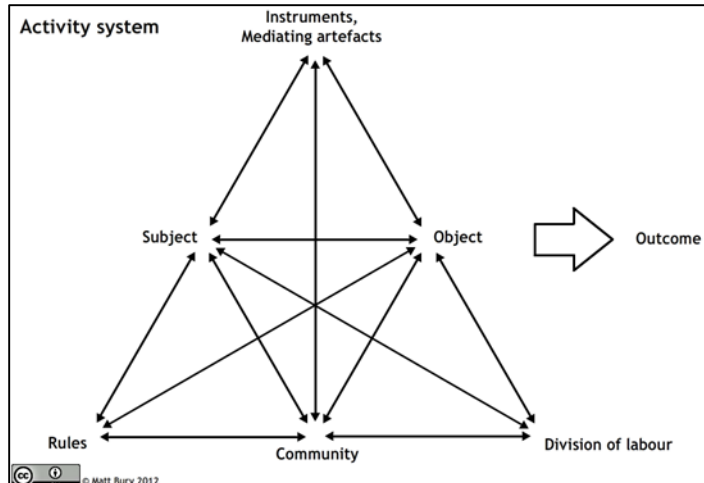
Figure 1
Activity theory model diagram (Bury, 2012).

between multiple activity systems. As libraries transform and become more embedded in the institutional structure and culture, awareness of other campus activity systems and interactions will only become more critical to demonstrating library value and success.

Phase 1 Pre-symposium: Survey and Interview Methodology, Results and Findings

Phase 1: Methods

This qualitative study was conducted in two phases. In the first phase, GWLA librarians collaborated to conduct a survey and interviews to identify the SLO assessment practices of GWLA academic librarians (See Appendix A and B for the survey questions and interview script). The survey was designed and distributed electronically. A taskforce sub-committee of librarians worked to design, implement, and evaluate the survey responses. Another sub-committee of librarians designed the interview protocol and conducted the interviews. Audio interview files for 20 interviews were transcribed by an external transcription service. The follow-up interviews, which further described and informed the survey responses where then coded and analyzed by a third sub-committee of seven librarians, using a grounded theory approach

(Strauss & Corbin, 2014). Librarians worked in pairs to triangulate coding results. All of this research was conducted with a purpose of planning for a GWLA Assessment Symposium and prior to the 2013 Symposium. In the second phase of the research, 2 of the original 7 librarians who helped to code and analyze the 20 interviews continued to analyze data and took the analysis to the next step of theory generation. This data analysis took place after the Symposium.

An electronic survey was distributed to the GWLA membership, and 23 GWLA libraries (72%) responded to the survey. Survey respondents were either selected by their Library Dean or Director, or volunteered to take the survey because they were a librarian with assessment or instruction expertise and aware of student learning outcomes assessment practices on their campuses. The selection and position of the interviewee(s) varied based on the organizational structure of each of the academic libraries and that decision was left up to the survey respondents on who should represent the library and participate in the survey and interviews. However, all interviewees were instructed to respond to questions on behalf of their library and not on their individual projects. The respondents answered a series of questions about the presence and assessment of SLOs on

their campuses. The purpose of the survey was to uncover which libraries had established SLOs and were using information literacy (IL) SLOs, and at what levels of the institution the SLOs existed or were being assessed. Librarians were also asked if they were assessing their faculty/librarian collaborations.

From the 23 survey respondents, 20 people either volunteered for a follow-up interview, or appointed someone else as the designated library representative. Librarians were invited to participate based on their role in the library, either with assessment or library instruction, and also for their ability to discuss the status of assessment at other levels of their institution. In 65% of the cases, the same person who responded to the survey also consented to the interview. In 35% of the cases, several people participated in the interview to speak to multiple aspects of the instruction and assessment topics. For example, an instruction librarian and an assessment librarian were interviewed together in some cases at institutions. Interview participants were encouraged to extend invitations to other assessment and instruction librarians or staff to participate in the interview if one person might not be able to answer all of the questions.

A plan was also established for conducting interviews and collaborative qualitative analysis of the interviews. Follow-up interviews began in Spring 2012 and were completed in December 2012. Data analysis was ongoing during the interview process and completed in Spring 2013. An additional bibliography was also compiled on published reports of assessment evidence, practices, and innovations, which were gleaned from topics raised in the 20 interview transcripts. This data was used to recruit presenters for the GWLA November 2013 Librarians Partnering for Student Learning Symposium that was held at the University of Nevada, Las Vegas. Throughout the spring, summer and winter of 2012 interviews of the follow-up contacts were conducted by telephone via interview teams. From these interviews,

written summaries were created, interviews were audio-recorded, and the audio files were transcribed. The transcribed transcripts were then submitted to the qualitative analysis team, where pairs of researchers analyzed and triangulated the interview data and compiled the findings. The transcripts were analyzed using grounded theory qualitative methodologies using open and axial coding strategies (Strauss & Corbin, 2014). For the open coding analysis, the researchers individually read the transcripts and created preliminary codes to describe the text. Then the research pairs compared their coding and moved into the axial coding stage where they looked for relationships and connections between the codes and created larger categories. To begin the interview analysis, pairs of researchers coded four interview transcripts, one pair for each interview. Each researcher coded his/her interview independently first and then member-checked coding with his/her partner who had also coded the same interview. Each pair submitted a single set of coding. The coding from the four interviews was then compiled and analyzed for themes. Since not all institutions had a qualitative analysis package like NVivo or Atlas.ti to conduct qualitative analysis, the research team used Microsoft Excel to conduct the qualitative data analysis and to compile the results of the survey and interviews into themes and topics for further study. Tutorials on using Excel to do qualitative analysis were provided to researchers. From the first set of four interviews, a preliminary set of 17 categories was uncovered and used to define the codebook for the rest of the research process. The 17 categories were consolidated and re-evaluated to create a set of 5 major themes. A framework was developed from the themes and used to plan the GWLA Student Learning Outcome Symposium in 2013 (GWLA, 2013).

Phase 1: Survey Results

The survey results demonstrated that the presence and assessment of information literacy SLOs at GWLA institutions occurs at a variety of

levels. Fifty-seven percent of the 23 institutions that responded to the survey reported that they have campus-level SLOs, but only 26% reported that those campus-level SLOs were assessed. A similar disparity was identified at the college/department level between the presence and assessment of SLOs with 61% reporting the presence of SLOs but only 26% reporting assessment of the SLOs. However, at the library level, 65% of institutions reported the presence of SLOs, and 48% reported that the SLOs were assessed. In addition, when institutions were asked if librarian/classroom faculty interactions were assessed, 61% (14 of the 23 institutions) reported that they do assess these types of collaborations and 35% (8 institutions) reported they do not assess these collaborations, one institution reported that they do not know if these types of collaborations were assessed. The gap between what institutions reported about the presence of SLOs, and the actual assessment of SLOs, drove the question formation for follow up interviews with a purpose of trying to identify how SLOs are assessed.

Phase 1: Interview Results

Audio-recorded interviews were conducted and transcribed. Analysis of the first 4 interviews resulted in the identification of 484 codes, organized into 71 categories. These categories were analyzed using a recursive process of recoding, collapsing and combining codes, and renaming of categories until the remaining categories were deemed to be unique. From this process, 17 unique core categories were identified and defined. The 17 original categories were: 1*) strategies for planning, implementing & integrating SLOs;* 2) *roles/responsibilities for assessment of SLOs;* 3) *collaboration;* 4) *communication issues;* 5) *tools-instruments-resources for SLOs;* 6) *accountability & reporting of SLOs;* 7) *curriculum & instruction;* 8) *departmental relationships;* 9) *culture and priorities issues;* 10) *structures, policies, and administration;* 11) *professional development;* 12) *challenges;* 13) *leadership;* 14) *change related;* 15) *opportunities;* 16) *general (SLO catch-all);* and 17) *information literacy*

topics. These categories were then used to code the remaining interviews. No new categories emerged from the remaining 16 interviews indicating data saturation.

During the second round of coding, the 17 categories of codes were collapsed and refined into 5 main themes. The five themes were: 1) *curriculum and instruction;* 2) *strategies for planning, implementing and integrating SLOs,* 3) *collaboration and communications issues,* 4) *roles/responsibilities for assessment & SLOs;* and 5) *SLOs structures, policies, and administration.* These five themes were returned to the researchers for confirmation; each researcher taking one or two themes, to verify that no additional themes had emerged. Using the five themes and code frequency data, a conceptual framework was constructed to relate and explain the themes. For triangulation and confirmation purposes, another GWLA taskforce member, who had not been involved in the coding process, reviewed and refined the framework. The resulting framework (Figure 2) consists of three main parts: *Deconstructing the Process of SLO Assessment, Building Partnerships,* and *Embracing Change and Opportunities.* Since the main focus of the interviews was to uncover SLO practices and processes across GWLA institutions it is not surprising that 55% of the coding resides in the first column of the matrix that includes two of the five themes and coding about SLO design, implementation, assessment and dissemination. The framework structure, across the rows, aligns the SLO design and assessment process to other cultural, contextual, and organizational institutional factors. The codes and themes in the second and third columns, although smaller in number, were consistently present and related back to the main SLO assessment theme.

Phase 1: Survey and Interview Discussion

The conceptual framework for designing, implementing, assessing, and disseminating SLOs (Figure 2), developed from the consolidated GWLA data in the first phase of this study, can provide guidance for individual

Deconstructing the Process of SLO Assessment *55% of the Codes*	Building Partnerships *33% of the Codes*	Embracing Change and Opportunities *12% of the Codes*
Themes: 1) Curriculum and Instruction; 2) Strategies for Planning, Implementing and Disseminating SLOs	**Themes:** 3) Collaboration and Communication Issues; 4) Roles and Responsibilities for SLOs	**Themes:** 5) SLO Structure, Policies and Administration
Designing and articulating SLOs (library, course, program, institutional levels)	Collaborating with faculty, departments, and administrative groups	Identifying drivers and challenges and opportunities within the cultural context around SLOs
Implementing and integrating SLOs at all levels	Developing relationships with campus and professional partners and units	Participating in professional development to broaden scope of practice and understand the higher education context
Designing assessments and collecting results	Evaluating and leveraging organizational culture (opportunities and barriers) and synergy	Jumping on opportunities and events uncovered
Distributing and disseminating SLO information and results	Articulating roles and responsibilities	Broadening the scope of practice
	Improving communication between libraries and other campus audiences	Utilizing support from campus-wide units (e.g., teaching center, institutional research)
		Conducting research to measure progress (use the assessment cycle to document and measure)

Figure 2
Conceptual framework for designing, implementing, assessing, and disseminating SLOs.

libraries as they work to evaluate their own contributions to campus efforts related to articulating, embedding, and assessing of SLOs. This conceptual framework emphasizes the importance of building relationships, embracing change and opportunities, and considering contextual and organizational structures when planning or sustaining successful SLO design and implementation projects. These findings are in line with current library research that focuses specifically on developing strategies for building library-faculty collaboration and trust and consideration for the complex set of contextual factors that can vary widely across institutions (Phelps & Campbell, 2012; Oakleaf, 2010). These factors may become critical or pivotal barriers or possible opportunities related to successful SLO implementation and dissemination. Findings from this study indicate there is no one magic bullet method for integration of library IL SLO or successful SLO assessment implementation. The themes of *communication, collaborations/partnerships, embracing opportunities, addressing challenges,* and *the rethinking of roles and responsibilities* were evident across all institutions that participated in the study. However, the variation in contextual/cultural factors, organizational structures, internal and external drivers, as well as, leadership and levels of librarian proactivity also appear to result in very different practices and outcomes. One librarian stated, "I think the library's leadership needs to be more proactive in promoting the library's role as an information literacy agency on campus." Therefore, the conceptual framework can be used as a roadmap to establish a process for developing library awareness, and establishing priorities for

libraries to take leadership roles. Findings from this study suggest that institutions reflect on their own institutional context and therefore tackle their unique complex situation in their own way. Best practices or assessment strategies successful at one institution may not always be easily replicated at other institutions. In addition, since each institution and library may be at a very different place related to the articulation and implementation of SLOs, this framework may provide a more flexible and holistic option for reflection and strategic decision-making than a step-by-step assessment implementation procedure or checklist approach to assessing SLOs.

Data from the study also indicate that the planning process for campus-wide SLOs is often a top-down or administrative initiative, resulting from accreditation concerns, or an institutional focus on evidence based decision-making or assessment. One example of how a university librarian described the assessment support structure at the administrative level drove SLO assessment is,

> "Our institution is very, very driven by the evidence-base learning outcomes of students. We don't just call them student-learning outcomes. The Office of the Provost for the past five years has made it very clear that every school has to have evidence based learning outcome. And that of course does include information literacy at the departmental level. So we are very much embedded in this kind of approach."

It was also noted during analysis of this study data, at both the campus and library levels, considerable efforts are being made to standardize assessment efforts. Libraries and institutions are investing in the assessment effort, creating assessment and planning librarians, or instruction and assessment positions to focus efforts and provide

accountability. One librarian discussed reactions to accreditation needs and remarked, "One of the things that's happening in response to our last accreditation visit is that we have developed this Office of Assessment of Teaching and Learning. And they are responsible for conducting undergraduate assessment." Many member institutions indicate that they are in the process of learning to assess. Instruction librarians are applying many approaches and instruments in their assessments, using qualitative and quantitative methods often modeled after national tools like the Association of American Colleges & Universities (AACU) Valid Assessment of Learning in Undergraduate Education (VALUE) Rubrics (AACU, n.d.); Tool for Real-time Assessment of Information Literacy Skills (TRAILS) (Kent State University Libraries, 2016); Rubric Assessment of Information Literacy Skills (RAILS) (Oakleaf, n.d.); and Standardized Assessment of Information Literacy Skills (SAILS) (Kent State University Libraries, 2016).

Phase 2: Grounded Theory Methodology, Results, and Findings

Phase 2: Methods

In Phase 2 of the study, two of the original GWLA researchers continued the search for a core variable and theoretical grounding, and continued to recode and reevaluate data. The purpose of this phase of the research was to go beyond description and uncover a theory or conceptual framework that would help institutions analyze their own institutional context so they could better integrate the academic library into their own institutional and contextual processes. The 17 categories and 5 themes from Phase 1 of the research created the foundation for further analysis. The researchers returned to the literature to uncover theoretical connections by recoding and categorizing through a process outlined by Glaser & Holton, (2004). The research process included numerous coding iterations, constant comparative analysis
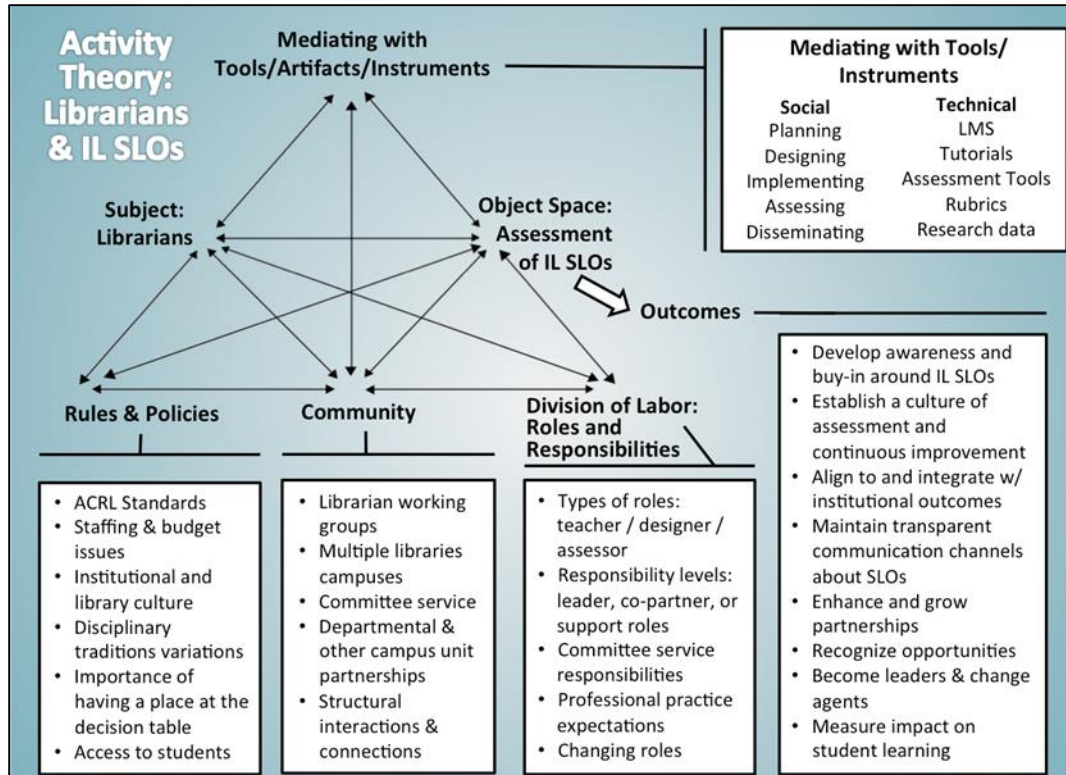
Figure 3
A library level activity system model (diagram created by Spencer, 2014).

as well as member checking and collaborative discussions and memoing about the data. After many iterations of coding and recoding, the data and categories from Phase 1 of the research were used to generate the theoretical construct discussed in this paper.

Phase 2: Grounded Theory Results

The purpose of this additional analysis was to take the study to the stage of theory identification. Interview data were recoded and reanalyzed with a more conceptual focus examining the three different institution levels of campus, department/college, and library. Recoding resulted in a more detailed and conceptual description of the SLO contextual factors and uncovered how opportunities and challenges of the design, implementation and distribution of SLOs are mediated at the different institutions. The six conceptual themes that emerged from this additional coding

process were *building awareness, power and ownership, embedded in or on the fringe of culture, opportunity advantages, organizational structure*, and *strategic leveraging*. Taking a grounded theory approach and revisiting the literature after revised conceptual coding provided a broader lens of perspective and yielded an identification of Activity Theory as a possible theoretical frame for understanding SLO development and implementation as well as campus interactions. (Chaiklin, Hedegaard, Jensen & Aarhus, 1999; Engeström, Miettinen, & Punamäki, 1999).

After theory identification, the data were recoded once again to confirm alignment of the data to the main components of the Activity Theory Model which consist of 4 components: 1) *rules and policies*, 2) *community*, 3) *division of labor (roles and responsibilities),* and 4) *mediating tools and artifacts*. Both researchers recoded data again using these four components as codes and all

data could be aligned directly to these activity theory components. This confirmed the suitability of this activity systems theory as a lens for understanding the research data. Figure 3 demonstrates the alignment of previous codes, categories, and themes from the conceptual framework analysis of Phase 1, to the library Activity Theory model of the Phase 2 research.

Further literature searching exposed a related theory, Expansive Learning (Engeström & Sannino, 2010) which is called third-generation activity theory, that offer explanations for contextual factor interaction inherent in multiple systems. Figure 4 demonstrates the alignment of the Phase 2 conceptual themes analysis across the three different levels of an institution and at the intersection of the three different activity systems. The interaction of all three systems or what Engestrom calls "co-configuration" (Engeström, 2004), focuses on the theme of strategic leveraging of opportunities, challenges and needs.

Phase 2: Grounded Theory Discussion

As related to a finding from Phase 2 of this study, the researchers contend that the activity of planning, designing, assessing, and disseminating SLOs is mediated through tools, processes, rules, and community interactions. Re-examination of the data using the activity theory model focused our analysis more on the contextual factors influencing SLOs and less on the actual SLO assessment. The highest occurrence of coding related to the rules and policies component of the activity theory model, which was located in the institutional level data. Although this may not be a surprising finding, it is important to be aware of this when trying to work within an institutional context. In this study, library/faculty interactions were influenced by socio-cultural factors and library/campus level interactions were driven by organizational structure and policy, as well as, by change. Themes such as *accreditation as*
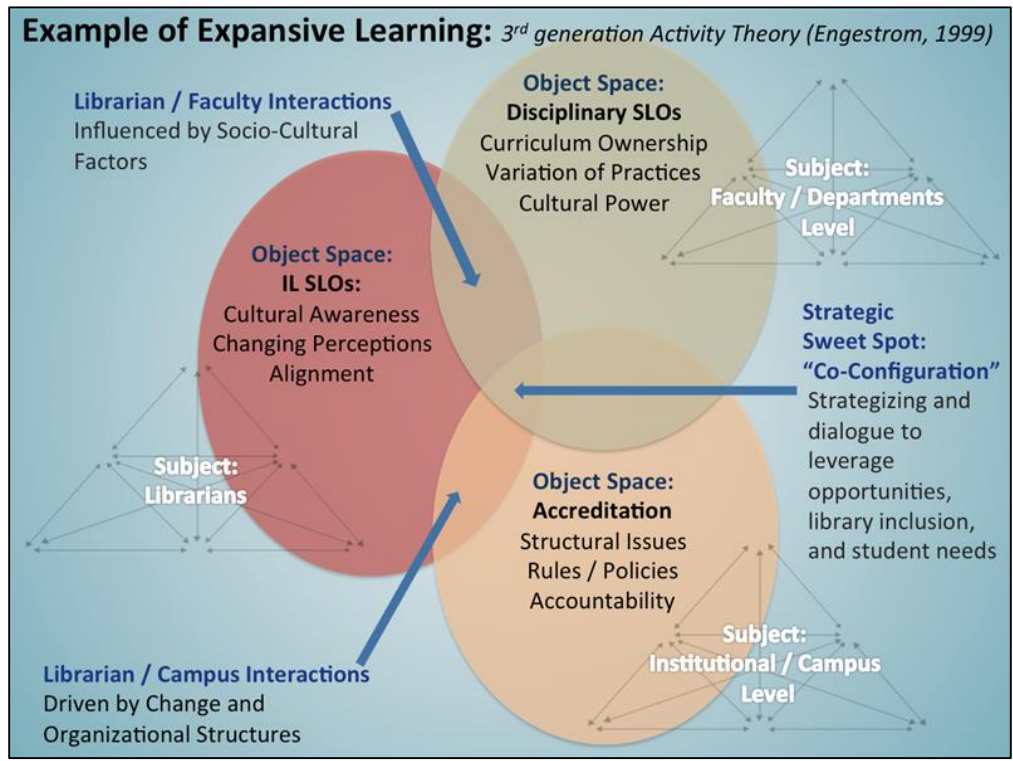

Figure 4
Intersections of three institutional activity systems.

driver, change, leadership, organizational structure, institutional culture, and *getting a place at the decision making table* can now be connected to the institutional level structures and culture. As librarians, it appears to be critical to get plugged into the institutional culture. One librarian expressed concern about this and stated,

> *… there is also the idea that on this campus, and I think probably we're not unique at all, people … still think of libraries as the place that has the stuff and … they don't necessarily look [at] the librarians as partners in their teaching … and we don't have faculty status here and so we're not at the table.*

Librarians should consider taking a more proactive approach for inclusion in reform and change initiatives, as well as employing routine operating procedures at their institution, which may vary depending on the culture, leadership and engagement of administrative units with assessment. One institution discussed the challenges, but also the opportunities, when librarians take on new roles:

> *I would say the biggest challenge that we've had is the fact that we have kind of taken on … being experts on course design and so we have had pockets of faculties who sort of questioned that or why our librarians doing this, they don't teach. So, it has been a big kind of image remake and marketing opportunity for us.*

This concept of librarians as change agents is an emerging theme in the library (Pham & Tanner, 2014; Travis, 2008).

Three Institutional Vignettes

Of the 20 institutions analyzed, institutional coding profiles varied which was evident in the frequency of coding and categories. By exploring the data using the components of

activity theory, different priorities, foci, and initiatives at different institutions were uncovered. Three different institutional profile vignettes are presented below as examples to demonstrate the alignment of interview coding, categories and themes at three different levels of the institution (campus or institutional, department or college, and library) coded at the four different components of Activity Theory.

Vignette 1: The Bigger Picture

The first vignette is an institution that stood out with exceptionally high coding frequency numbers at the institutional and library levels and very low levels at the college/department level (Table 1). This large public research institution, reported SLOs at all three levels of the institution. Assessment is reportedly driven by accreditation and there is a central assessment office, which may account for the larger number of codes around the structure and process of community at the institutional level. Library SLOs are aligned to the institutional SLOs and there are assessment representatives in each unit. SLOs developed out of the faculty senate with no library involvement but there is evidence in the library of assessment professional development. At the library level the high coding frequency for division of labor (roles and responsibilities) is attributed to instances of discussion about the roles librarians play in faculty collaboration and assessment of SLOs by designing assignments, SLOs, collecting data, and disseminating SLOs. At the college/department level however, there is a very low number of codes and the discussion in the interview was only focused on the variation of assessment and culture across departments.

Vignette 2: The Community in the Library

The second institution, also a large public university, has the largest concentration of code frequencies at the library level, and specifically in the community component of the library level (Table 2). This is a decentralized institution, and a centralized SLOs assessment culture is a

Table 1
The Bigger Picture University Focused Profile

Institution Level Coding					College/Department Level Coding					Library Level Coding				
Community	Division of Labor	Rules	Tools / Artifacts	% of Total Codes	Community	Division of Labor	Rules	Tools / Artifacts	% of Total Codes	Community	Division of Labor	Rules	Tools / Artifacts	% of Total Codes
24	5	14	24	50.0%	2	7	0	0	6.7%	19	20	3	16	43.3%

Table 2
The Library Community Profile

Institution Level Coding					College/Department Level Coding					Library Level Coding				
Community	Division of Labor	Rules	Tools / Artifacts	% of Total Codes	Community	Division of Labor	Rules	Tools / Artifacts	% of Total Codes	Community	Division of Labor	Rules	Tools / Artifacts	% of Total Codes
16	0	1	0	17.2%	14	0	2	0	16.2%	61	1	0	4	66.7%

challenge, but locally in the library there is a strong culture of assessment. Historically it appears this institution has focused on library as place and collections, and less on measuring student learning across the different levels of the institution.

Vignette 3: A Lot of Teaching Responsibilities

In this last vignette the high coding frequencies at the College/Department and Library level are attributed to a high percentage of the discussion focused on discussing specific teaching projects in departments by librarians in the interview. This research institution is in the process of moving to a liaison model approach with faculty and therefore this may account for the higher department/college coding frequency numbers (Table 3). The interviewee reported that there is a good balance at this institution between research and teaching but reports challenges of

time constraints that dictate preparation issues. There is more of a focus on curriculum development than assessment.

As you can see from the brief vignettes of these three different GWLA institutional libraries, each institution has slightly different priorities, and in the interviews discussion was focused on different issues. Unique situational factors and cultures can impact institutions differently. Findings from this study emphasize the importance of developing awareness of your institutional culture, organizational structure, and academic priorities. By being aware of the environment and also tuned into emerging priorities and initiatives, librarians will have opportunities to be proactive and step-up and engage with their academic community. Libraries are positioned to increase their organizational value by drawing on internal teaching expertise, developing new skill sets in

Table 3
The Library Focused on Teaching University Profile

Institution Level Coding					College/Department Level Coding					Library Level Coding				
Community	Division of Labor	Rules	Tools/ Artifacts	% of Total Codes	Community	Division of Labor	Rules	Tools/ Artifacts	% of Total Codes	Community	Division of Labor	Rules	Tools/ Artifacts	% of Total Codes
10	0	0	1	15.3%	16	1	0	5	30.6%	19	7	0	13	54.2%

instructional design or other areas, and taking a proactive stance where leadership or expertise is desired.

Conclusions and Recommendations

The impact that a unique institutional culture and context has on the ability of an organization to come together around designing, assessing and disseminating SLOs was the most interesting finding in our data at both phases of the research study. Some institutional efforts are bolstered through an institutional commitment to evidence-based decision making while other institutions reported that a decentralized organization, lacking a culture of assessment, or lack of leadership could deter success in developing and implementing SLOs. Other related limitations identified were academic freedom issues, fear of negative impact on the tenure and promotion, and the location and status of the library staff within the institutional structure. Many libraries reported that they are actively building a culture of assessment and creating positions to support SLO efforts. Additionally, information from the interviews suggests that planning the process for SLOs is often a top down initiative, resulting from accreditation drivers, or a presence or lack of presence of an institutional focus on evidence or assessment. This is an area that might merit further exploration and research in conjunction with the emerging economic and political issues in higher education, which impact the ability to staff and fund assessment efforts.

Another interesting aspect of the data analysis evolution centered on differentiating between collaboration and campus-wide partnerships. As the analysis progressed, the researchers saw collaborations as more related to individuals working together, whereas partnerships focused more on developing alliances or more long-term working partnerships with other campus units. These are two very different things. It appears from the data that partnerships could have a broader and more powerful impact on the work done in the library when integrated with the opportunities for librarians interacting at different campus levels, as compared to collaborations, which, focused on one-on-one interactions with faculty. Therefore, one recommendation for future research is to focus on studying how the presence of partnerships, as compared to collaborations, specifically might impact the process of designing, implementing, assessing and disseminating SLOs at various levels of the institution.

Data indicated that curriculum development might be an area fruitful for more study. As one interviewee in this study noted, "Often the process of curriculum development does not include incorporating assessment. Instead, assessment of learning is considered something to be addressed separately, after the curriculum is developed." This practice seems to run counter to the current practice of 'backward design' (Fink, 2013), which was a successful strategy used by one of the GWLA partners, and includes the sequential steps of outcomes,

assessment and then curriculum development. Additional research in this curriculum design area could shed light on how libraries are integrating assessment into curriculum level.

For the second phase of this study that linked the study data to Engestrom's Activity Theory, there are many implications and recommendations for library practice. Analyzing the library landscape and how the library interacts, interfaces and embeds within both the campus and departmental level could benefit from strategic planning. This study data indicates the importance of considering the broader aspects of interaction and partnership when designing, implementing and disseminating IL SLOs. Awareness of the larger institution culture and what initiatives are 'hot' and being funded will provide opportunities for being proactive and engaging with the campus community. Awareness of new initiatives might also provide opportunities to extend library roles or take on new roles.

Even though each GWLA institution reported on a variety of methods, strategies, and organizational approaches based on their unique contextual and cultural structures for designing, implementing, assessing, and dissemination of SLOs, there are however, commonalities in the motivators and drivers for assessment across institutions, such as accreditation reviews, program redesigns, and a desire to move to a more evidence-based driven culture. Institutional contexts and cultures, campus academic priorities and initiatives, leadership at both the institutional and library levels, and changing roles of librarians; themes that emerged from this study are important factors to consider when planning the design, implementation, assessment and dissemination of IL SLOs.

Limitations of the Study

As with any research project, there are process and methodology limitations in this study. Not all GWLA member institutions participated in

the study; this was a purposive sample of volunteers interested in SLOs. Therefore, since participants self-selected, participation may not be a true representation of the consortium. In addition, although interviewees were librarians selected to or volunteered to represent each institution, and selected by the role they played at their institution, there may be other people at their institution that could speak better to the institutional view of assessing SLOs. Therefore, the information they provided may be limited by their own personal library role and experience or limited by their personal knowledge about the larger institution.

The data analysis in this study was done in Excel due to the lack of access to expensive qualitative analysis software by the participating researchers. Using qualitative software like NVivo or Atlas.ti would have enabled a more comprehensive and accurate method for coding data and drawing conclusions. In order to understand the study findings, it is also important to take into account that the qualitative analysis part of this study was explorative in nature with a purpose to identify possible topics or gaps for future GWLA sponsored research study. It should also be noted that the negative and positive coding instances of themes are not teased apart to isolate negative and positive coding separately; they are combined together under the major category/theme frequency numbers to demonstrate the need for exploration in the most commonly described topics/issues area.

Finally, taskforce researchers with a variety of levels of qualitative expertise conducted the research. Despite this limitation, the taskforce was able to set up an effective process for collaborative research and triangulate coding with partners. Now that the process is defined, it will be easier to replicate this process and use this method as a possible model for conducting GWLA collaborative qualitative research in the future; however, we did experience some accuracy and logistical issues in this first

attempt at collaborative qualitative research using Excel.

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Appendix A
GWLA Survey Questions

1. Does your institution have SLO's that address information literacy (i.e., critical thinking, evaluation and synthesis of information) at any of the following levels?
   Yes, No, Don't Know responses for the:
   a. Campus Level
   b. College/Department Level
   c. Library Level

2. Does the library assess information literacy SLO's at any of the following levels?
   Yes, No, Don't Know responses for the:
   a. Campus Level
   b. College/Department Level
   c. Library Level

3. Does the library measure the impact of its collaborations with classroom faculty and other academic partners? (Yes, No, Don't Know responses)

4. Would you, or someone else at your institution, be available to answer more in-depth questions about student learning outcomes and assessment at your institution?
   Place to provide contact information

Appendix B
GWLA Interview Script

The purpose of the interviews was to get more detailed information about the survey responses and therefore the possible interview prompt script was developed from that structure.

1. Does your institution have SLO's that address information literacy (i.e. critical thinking, evaluation and synthesis of information) at any of the following levels (Campus, College/Department, or Library Levels) ?

If Yes:

- Please describe.
- Is there a central SLO organization (taskforce, department, committee etc.) on your campus that oversees college/unit student learning assessment?
- Are they posted on a publicly accessible website? If yes, please provide the url.
- Was it a cooperative effort to develop them? If yes, was the library involved?
- If they exist but not formally stated, are they cultural? How do faculty know about them?
- Did the SLOs have an impact? What programs have changed as a result of the SLOs?
- How have libraries built partnerships on campus that have led to the development of SLOs within courses and programs?

If No:

- Are there future plans to develop SLOs?
- Is there a lack of resources or personnel to develop SLOs
- What actions should the library be taking? Received comment that this question may be too leading.   What is limiting the institution in creating SLOs> What role does the library have in creating SLOs?

2. Does the library assess information literacy SLO's at any of the following levels (Campus, College/Department, Library Levels)?

If Yes:

- How are they assessed?
- How often are they assessed?
- In what venues?
- Are the results shared with the wider academic campus?
- Is it a cooperative effort with faculty?

If No:

- Are there future plans to develop SLOs?
- What actions should the library be taking?
- Is there a lack of resources or personnel to develop SLOs?
- Is there campus support for developing SLOs?
- Will academic faculty be involved in their development? Why or why not?

3. Does the library measure the impact of its collaborations with classroom faculty and other academic partners?

If Yes:

- o Which collaborations does it measure?
- o How? When? How often?
- o Are academic faculty included in the assessment?
- o Are the results shared with academic partners?

If No

- o Any future plans to assess them?
- o Is there campus support for assessment?
- o Are there venues on your campus for people interested in discussing, sharing, or collaborating on institutional data or assessment?
- o Will academic faculty be involved in the assessment? Why or why not?

4. Is there anything further you want to add or discuss?