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Today individuals are expected to be able to move in-between individual literacies, therefore it is essential that they possess skills that can be transferred from one setting to the next; otherwise known as transliteracy. To work towards defining a skillset needed to achieve transliteracy, this study takes an initial look at the common skills that appear across the standards of three individual literacies: visual, media, and technological literacy. Content analysis was conducted on these standards as well as responses from a focus group of public library adult services staff who discussed these standards. Data was coded to identify commonalities between the standards and the views of the library staff. Differences between the focus of the standards and that of the public library staff shed light on what skills are most relevant to the needs of public library patrons and what type of standards are most useful to public library staff.

Headings:

Information literacy

Literacy & Learning

Media literacy

Technological literacy

Transliteracy

Visual literacy

TRANSLITERACY: DEFINING A SKILLSET FOR 21ST CENTURY LITERACY

by
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Introduction

Transliteracy is a fairly new term but the reason for its coinage is not. What it means to be literate has changed greatly and quickly over the past few decades due to increases in the amount of information and the creation of new information and communication formats. The Oxford English Dictionary provides two definitions for literacy. The first refers to the original meaning of the word, “the quality, condition, or state of being literate; the ability to read and write”; and the second is a more modern and broader application of the word, “in extended use (usually with modifying word), the ability to ‘read’ a specified subject or medium; competence or knowledge in a particular area” (OED Online, 2011). “New literacies” such as information literacy, visual literacy, media literacy, and technological literacy have been developed in an attempt to capture the new skillsets individuals need to be considered literate in the 21st century. Librarians and other educators quickly recognized the importance of possessing not just literacy in the traditional sense but of being familiar with all types of literacies. However, they also recognized that if patrons had to learn an entirely new set of skills to approach each format or platform used to convey and create information, they could never keep up. Transliteracy seeks to address the multiliteracy reality of today’s world.

In 2005 Alan Liu founded the Transliteracies Project Group (TPG). Although the focus of TPG was on online reading, Sue Thomas who attended the 2005 Transliteracies Conference, built upon TPG’s ideas to form a broader definition of transliteracy. The current working definition created by Thomas reads, “Transliteracy is the ability to read,

write and interact across a range of platforms, tools and media from signing and orality through handwriting, print, TV, radio and film, to digital social networks” (Libraries and Transliteracy, 2010). Like translating text from one language’s alphabet to another, transliteracy maps meaning across different types of media instead of in isolation between the different types (Ipri, 2010). It is a concept that encompasses all literacies and does not replace or compete with specific literacies. Instead, a person who is transliterate can navigate each type of individual literacy. While this concept originated with Liu outside of the library field, Thomas created the Production and Research in Transliteracy (PART) Group to bring it to the attention of library professionals.

While transliteracy is becoming more recognized, there is a dearth of research surrounding transliteracy. Most significantly, a transliteracy skillset has yet to be defined. Without such, librarians are unable to determine what resources, services and instructions are most effective to help their patrons become literate across all formats and platforms. Ipri (2011) touches on this problem; he states that at the time he wrote his article there had been no attempt to convert transliteracy concepts into a definitive list of skills that can be taught.

Problem Statement

Public libraries play a key role in literacy education. The Institute of Museum and Library Services (IMLS) (2009) notes that today, all people regardless of age do the majority of their learning outside of formal education. One of the places that this informal education is provided is at the public library. The 2009 document, *Museums, Libraries, and 21st Century Skills*, states that there are three major changes in our society that have

increased the importance of libraries to position themselves as learning institutions, one of which is an increased importance of self-directed lifelong learning (p. 13). As the report notes, “Museums and libraries offer rich and authentic content, dedicated and knowledgeable staff with deep expertise, and safe, trusted setting for individuals and families, all of which invite and support effective learning” (IMLS, 2009, p. 8).

The American Library Association (ALA) also recognizes the potential of the unique role public libraries fill. In the ALA’s (2011) fact sheet on Public Library Use, the ALA collected statistics that demonstrate the vital role public libraries play through their services that are necessary in everyday life. For instance, of the libraries that responded to ALA’s Fiscal Year 2009 survey, there were 1,591,293,000 visits or an average of 5.4 visits per person that year. A 2008 Harris Poll found that 68% of Americans have a library card, and 76% of Americans visited their local library in the past year (ALA, 2011). With the number of people who are connected to and visit public libraries, they have the potential to reach a large portion of the U.S. population, and literacy is an area that public libraries have long participated in.

As the expected level of literacy for students, workers and citizens continues to increase, so too does the complexity of literacy. Thus it is necessary to teach literacy in a way that incorporates prior knowledge and allows individuals to refer to a basic set of skills upon which they can expand. However, without a defined set of skills associated with transliteracy, public librarians lack the proper direction needed to provide effective resources and instruction for patrons. Thus, the research question which guided this study is:

- What is the core skillset needed to achieve transliteracy?

Purpose of Study

The goal of this research is to gain an understanding of what skills and knowledge are needed for an individual to be transliterate. The objective is to identify core building blocks, or subsets of skills, which once learned can be transferred from one format to another, and allow individuals to successfully interact with and use information in a variety of formats.

Literature Review

Because the term and concept of “transliteracy” are still fairly new, little empirical research has been conducted on the topic specifically. There is however, much relevant research in the areas of literacy, contemporary literacy, 21st century skills, and information literacy in the fields of Information and Library Science, Education and Economics. Concepts such as multiple literacies and multiliteracies are closely related to transliteracy and therefore research in this area is applicable. The three following areas are explored below: contemporary literacy, transliteracy’s role in contemporary literacy, and next steps towards transliteracy.

Contemporary literacy

The definition of the term “literacy” has changed greatly over the last century. As Weis (2004) states, the term literacy was first used to mean that individuals could simply write their names. The definition later expanded to include reading and writing. More recently basic literacy has been described as the possession of a level of language efficiency that allows one to function at work and in society (Weis, 2004, p. 12).

Buschman (2009) notes that until recently literacy was mainly understood through its alternative: illiteracy. Illiteracy was tied to a lack of intellectual complexity and the economic advantages that reading enabled and can be seen on personal, social and global scales. This concept, that illiteracy had consequences beyond the individual, fueled literacy instruction in libraries. Libraries adopted the perspective that it was necessary to provide citizens with the skills to engage in society in an informed fashion. Today with so many literacies, one cannot be defined simply as literate or illiterate; there are varying degrees of literacy and different types of literacy that are all a part of the skills needed to succeed in today's world.

Literacy has also become a much more interactive process. Not only are individuals reading and writing for personal purposes they are now able to create content and to easily share it with others, thereby contributing instead of simply consuming information (Weis, 2004). Brown and van Tryon (2010), note that students are using technology not only to access information but to present information and can do so on a new scale via the Internet. They argue that educators (and librarians) therefore must be active in guiding students to become productive and responsible contributors.

Brown and van Tryon (2010) introduce the concept of mega and micro literacies, which they define as an issue of the scale of each particular literacy. They discuss five aspects that determine the scale of a literacy:

1. Time (distributing information can be immediate which can have both positive or negative consequences),

2. Size (Tweets or Facebook messages are very short and require the author to be concise and communicate in a different style),
3. Distance (one can participate and communicate in discussions outside of their physical community),
4. Audience (the Internet can create a worldwide audience which brings up issues of privacy and anonymity),and
5. Available data (the expansive amount of accessible information requires that individuals learn how to evaluate material).

Buschman (2009) too, addresses the diverse nature of literacies, and purports that literacy is not simply about reading or writing but is situated within cultural contexts that must be considered. In other words literacy is no longer just decoding and encoding; “new literacy challenges contain such critical reflexive concepts as the ability to recognize continually the centrality of form, content, and presentation [and] the manipulability of information” (p. 107-108). This shift has important implications not just for those learning to function in these varying scales of literacy, but for educators and librarians as well. Borsheim, Merritt and Reed (2008) argue that in order to prepare students to fully participate in in all spheres of life, educators and librarians must make pedagogical changes as well. They contend that it is becoming more important to incorporate technology into instruction, not to draw kids in, but because of the need for them to have the skills to use and navigate those technologies.

In 2009, the IMLS produced a report on 21st Century Skills and established assessment tools to determine how museums and libraries address these literacy skills. The IMLS report notes that the dramatic shift in the nature of the workforce has increased

the need to focus on 21st Century Skills. Some of the changes in the workforce include: the number of jobs held by an individual over a lifetime (now 10-15, up from 1-2); a need for simultaneous mastery of many rapidly changing fields; the non-routine nature of work (current focus on technical, creative and interactive work); and the change from institutionally centered education to learner centered and self-directed learning. The report argues that all of these changes create a need for lifelong learning in order for those in the workforce to meet the needs of their positions.

Research conducted by the Partnership for 21st Century Skills also focuses on the skills needed in the workplace, identifying a gap in the practical skills acquired in schools and skills needed to be successful in the workplace. To close this gap, the partnership developed the Framework for 21st Century Learning. The framework details the need to recognize the importance of 21st century themes which include different types of literacy, including information evaluation (Brown & van Tryon, 2010). The IMLS used this framework as the basis for the list of skills they identified as most relevant for libraries and museums. The skills fall into three main skill groups: learning and innovation skills; information, media and technology skills; and life and career skills.

Many library professionals focus on these 21st century skills, in response to a demand from schools and employers for training beyond basic literacy, in particular skills for lifelong learning and employment (Weis, 2004). Furthermore, the ALA identified 21st Century Literacy as one of five action areas to focus on in order to fulfill its mission to provide the highest quality library and information services to all individuals so that they may develop the needed skills to be a part of an information society (ALA, 1998). These skills have been a focus of the library field for over a decade.

Several researchers, including Buschman (2009), believe that despite the expanded definition of literacy, many librarians and educators are still too focused on the academic aspects of literacy. Bushman argues that librarians and educators need to address the more far reaching implications of literacy. Elmborg (2006) agrees and places some of the onus on the fact that information literacy (a concept that can be applied to all individual literacies such as media literacy, computer literacy, etc.) is not clearly understood by all library professionals. Elmborg argues that what needs to be focused on is critical consciousness instead of information transfer. This distinction has implications for the way in which information literacy is taught. As Elmborg notes, there continues to be an increase in demand for instruction from librarians, therefore an understanding of how changes in literacy need to be reflected in our pedagogical approaches is very important.

The fact that there is no longer one uniform definition of literacy hampers the ability of library professionals to effectively provide literacy training. What is needed is something that can tie together the multiple and diverse literacies that exist today, which is the impetus for the concept of transliteracy.

Transliteracy's role in contemporary literacy

Thomas et al. (2007) provide an example of the term transliteracy through an examination of the different tasks that online reading entails. They assert that reading online requires the reader to understand how the aural (in the form of music, sound effects, the narrator's voice), visual (images and text) and interactive modes (links, reader input, navigation) function simultaneously. If an individual does not understand how all of these aspects are related, one is not able to grasp the entirety or meaning of the

information. This represents a paradigm shift in the way we look at literacy. Much of how individuals process and interact with information, it seems, depends on the ability to change perspectives with the changing forms of information.

Arnonel & Reynolds (2009) examined the importance of the dispositions-in-action component of the American Association of School Librarians' Standards for the 21st Century Learners in relation to reading and technology instruction. Their study looked specifically at the effects of perceived competence in information and digital literacy skills on actual performance in literacy skills knowledge tests. The authors found that perceived competence positively affects actual performance in these areas and discussed the implications this has for curriculum design. When educators teach about technology, they argue it is important to use methods that will help students feel comfortable with the medium so that they can move beyond the interface to the content. Therefore, Arnonel & Reynolds argue that if individuals cannot move past the functions of an information format, they cannot move on to the actual content of the information or use that content in any effective way. Thus having a set of base transliteracy skills with which to approach new literacies will help individuals feel more confident in their ability to tackle new formats and platforms. Ipri (2010) describes how transliteracy can help individuals move between these formats,

In its original iteration, transliteracy is more about understanding the ways various means of communication interact and understanding, not necessarily teaching, the skills necessary to move effortlessly from one medium to another. It is about the convergence of these media and acknowledges the multi-modal experience of engaging with the modern world. As Thomas notes, transliteracy is a move toward "a unifying ecology of not just media, but of all literacies relevant to reading, writing, interaction and culture... Transliteracy is very concerned with the social meaning of literacy. It explores the participatory nature of new means of communicating, which

breaks down barriers between academia and the wider community and calls into question standard notions of what constitutes authority by emphasizing the benefits of knowledge sharing via social networks (p. 533)

As Buschman (2009) stated, literacy is often shaped by its context; because of this, each literacy activity involves some form of translation. If individuals are familiar with transliteracy skills, they will be able to start from a common point and extract the unique qualities of a new literacy from there.

Mackey and Jacobson (2011) focus on what they view as the major aspects of literacy today: finding information, creating information, and sharing information in a participatory environment. They note a shift from an individual's skills to collaborative creation and sharing of information using interactive technologies. They refer to metaliteracy, not transliteracy, as the framework for a literacy that encompasses all formats including social media and other collaborative spaces. Despite their different use of terminology, the statement, "In today's new media environment, information seekers must not only determine the extent of information needed, but also the format and delivery mode of the information itself" (p. 70) rings very true within the concept of transliteracy. Without a comfort level across multiple formats one cannot focus on the content itself.

Dunaway (2011) discusses many of the same issues in her exploration of the learning theory "Connectivism"; however, she makes a clear distinction between metaliteracy and transliteracy. The connectivist model shows learning as a result of the connections learners make between ideas in their personal learning networks which can come from a range of resources and technology (p. 676). Dunaway notes that a greater emphasis on librarians' roles as educators creates concern about effectiveness of teaching

especially as many librarians do not have formal training in this area. Thus learning and instructional theories can be very helpful to librarians. Dunaway sees transliteracy as a pedagogical tool helpful to librarians that focuses on how communication takes place across many platforms and technologies. While metaliteracy focuses on connections across types of literacy, “transliteracy emphasizes the importance of connections between users and information tools” (p. 679). As a pedagogical tool, transliteracy focuses on similarities instead of differences between library resources and web resources, so that learners are able to make connections and engage (p. 681).

Wilkinson (2011) comes to similar conclusions in a comparison of transliteracy with the more familiar concept of information literacy. A chart presented by Wilkinson outlines “A taxonomy of Literacies” and associates transliteracy with the medium-specific, literal “literacies” (print, visual, computer, etc.) under the heading “Communicative”. Information literacy on the other hand, is shown to encompass the evaluative aspects of literacy that can be applied to all medium-specific literacies. According to Wilkinson, transliteracy can help us actually work with information in terms of access, movement and meaning between formats, or “containers” (for example, if you read a document in one format and share it in another). In this way, learners are able to make connections between information they encounter in different formats.

Like Wilkinson, Huvila (2011) focuses on the use of information instead of its evaluation, but emphasizes the creation and organization of information that is often bypassed by information literacy despite the fact that literacy includes the concept of information creation and not just consumption. If library professionals are to encourage people to create and share, Huvila notes the importance of teaching individuals how to

make their information findable and usable for others so it benefits a larger community (p. 239-240). This requires one to understand how information is organized in various formats, which also helps individuals find information more easily themselves. As Huvila suggests, information creation does not have to be sophisticated but can be done through simple tools such as Flickr, Delicious, or LibraryThing. Using such tools also helps eliminate the notions implied by publishing traditions that you must be an expert to share information, and embraces the participatory culture that continues to gain momentum.

Though Huvila and others address the importance of such literacy skills, what is still needed is concrete guidance to help individuals achieve these skills.

Next steps towards transliteracy

In 1998 the ALA published a brochure on 21st Century Literacy in order to provide libraries and library professionals with guidance on how to best provide information services that address these literacy skills. The brochure notes that a library's role is not just to provide resources but to help teach patrons how to navigate the resources and to educate the public about the skills needed for 21st century literacy (which can also raise awareness of the value of the library).

Geiselhofer (2010) discusses the dire need for such services. She argues that online reading is linked to successes in postsecondary school and work, and yet the rate of pedagogical reform does not match the evolved nature of reading which leads to uncertainty about best practice for teaching new literacy skills. Currently no state assessments require skills in new forms of literacy (online search skills, information literacy, etc.) and so these often do not get the necessary attention in school (Geiselhofer,

2010, p. 133). This is a clear opportunity for public libraries to fill an information need. Over eight million adolescents in the U.S. are considered illiterate, and this only takes print-based reading into account (Geiselhofer, 2010, p. 22). Geiselhofer (2010) identifies a need for reformed teacher preparation programs, development of technology infused professional development, and articulated standards for new literacy skills in order to bring pedagogical methods up to speed with communication and literacy formats.

Elmborg (2006) too argues for a theoretically informed praxis. He states that, “Librarians will be involved with the daily struggle of translation between the organized conceptions of knowledge and the efforts of all students to engage that knowledge” (p. 198). Though a defined praxis is needed, as Brown & van Tryon (2010) point out, there will be a need to constantly re-evaluate literacy needs and adjust instruction accordingly. While this requires significant effort, evaluation such as this can be included in the overall needs assessments that libraries should conduct to ensure the services they provide meet their population’s needs.

Even in academia, where concepts such as information literacy are incorporated into many university’s intended outcomes for students, DaCosta (2010) found that despite instructors’ enthusiasm, there was a gap between the importance faculty placed on information literacy skills and actions taken to embed these skills in student learning. Many faculty members admitted that they expected these skills would be gained through “osmosis” and that the lack of effort on their part resulted in a lack of skills in their students. According to DaCosta there is an onus on librarians to make information literacy a priority and responsibility. An example of this is providing instruction for the students in the library or their classroom as well as instruction for faculty.

The findings of DaCosta's study identify a role that academic librarians can play in university settings, but there is also a need for public librarians to take on a greater role in all forms of literacy instruction. Many individuals do not have the opportunity to gain this type of instruction in a university or other academic environment and the public library is often the only resource for such instruction.

Benson's dissertation (2006) takes another look at how we can engage students in literacy. The population of this case study was a group of eleventh and twelfth grade students in a language arts class. The author observed the class for a year and interviewed the students. The purpose of the study was to see what effects the use of multiple formats of information and application of the multiliteracies theory had on the students' engagement. The feedback gathered from the students appeared to demonstrate inconsistent awareness of the importance of familiarity with different information formats as a result of emphasis on print in their educational experiences. The application of these formats and platforms for lifelong literacy tasks was not clear to many students. These results highlight the need to give context to the skills we teach with concrete examples of how these skills can be applied in students' own lives.

The importance of literacy training that is not limited to the print format is further explained by Luskin (2006) who argues that literacy skills are connected to learning styles, including learning in the work environment. Surveys and personal interviews of experts in the fields of education, entertainment and multimedia identified a critical need for communication literacies in lifelong learning, training, retraining, self-training and reeducation. The nature of many jobs has changed; the majority of positions are now in service industries and have an online component. Because of this, the use of new

literacies in the workplace is required. Job seekers are one example of the various populations and communities that are in great need of expanded literacy skills; and this is a very important group because the skills of our workforce affect our entire society.

The relation to the greater community highlights the need for library professionals to create relationships with other organizations and institutions. These relationships can help communicate the importance of literacy and reach diverse portions of the population. DaCosta (2010) discusses this in terms of the university setting, but it is also vital for public library staff as well. Public libraries have a large potential patron base; there are opportunities to reach both users and those who are not yet users of the library and to do so will involve outreach beyond the library walls.

Clear standards, which outline concrete skills, can help direct public libraries and other institutions as they plan how to provide relevant and effective literacy resources. For example, even amongst accrediting organizations there are discrepancies in the definition and standards outlined for information literacy. Saunders (2007) conducted a content analysis study to identify any references to information literacy or library instruction across different accrediting organizations. This study looked for any consistency in the descriptions of skills and competencies for information literacy, or methods of instruction or assessment (p. 320). This type of analysis is very informative in creating standards and ascertaining relationships by identifying themes and priorities that are shared by multiple groups. Additionally it is important that standards or skillsets created are comprehensible for the educators who guide others in these concepts.

Tyron et al. (2010) conducted a focus group with teaching faculty at Grand Valley State University to evaluate their understanding of the Information Literacy Competencies document created for that campus. They analyzed the focus group responses via content analysis and found that the terminology used was difficult for many teaching faculty to understand. As a result, the document was tweaked to be more accessible since standards cannot be implemented if they are not clear to the practitioners.

Thus, the literature clearly demonstrates that a standard discernible skillset is needed in the context of transliteracy in order to for libraries to effectively provide resources and materials to prepare individuals with the 21st century skills needed to succeed. The study described below seeks to address this need.

Methods

The goal of this study was to identify a core skillset needed to achieve transliteracy. Two approaches were used to do this: analysis of existing standards for individual literacies; and a focus group interview with practicing librarians. The results of the two approaches were analyzed to determine what elements need to be addressed by a transliteracy skillset.

Researcher Analysis

The standards selected for analysis were produced by organizations with a broad audience, in contrast to those directed at one unique institution which aims to meet specialized goals of a specific community. The producers of the standards were examined for their authority and currency; the standards deemed to best fit those two criteria were selected as representative standards for each literacy examined. Those chosen were also

selected to represent a range of styles, from a thorough description including learning outcomes to an abbreviated checklist. The standards selected were produced by the following organizations: visual literacy- Association of College & Research Libraries, technological literacy- International Society for Technology in Education, and media literacy- National Association for Media Literacy Education.

The standards' texts were collected from the websites of the organizations that produced them and imported into NVivo, a qualitative data analysis software. For those that were accessible in PDF format only, Optical Character Recognition (OCR) was used to allow text to be selected for coding. The three standards sources were classified as Standards within NVivo so that the content coded from the standards could be distinguished as a group from that which came from the focus group source.

NVivo was used to identify commonalities across the three standards. Conventional qualitative content analysis was used to identify and code themes. Wildemuth (2009) defines this method as one, "in which coding categories are derived directly and inductively from the raw data" (p. 309), as opposed to a predetermined coding scheme. Because this study looked for data that would inform the identification of a transliteracy skillset, this allowed themes to be identified inductively. The units of analysis (nodes) were skills, issues, or concepts identified in the standards. Within the coding structure there were two levels of nodes: parent nodes and child nodes. The parent nodes represent broad themes that emerged and characterized a certain type of skill, and the child nodes represent more specific subskills that fall underneath the parent nodes. There was no determined size of text to be coded by nodes (such as a word or sentence). As Wildemuth (2009) states, "some themes are embodied in a single comment, while

others are embodied in a dialogue between multiple participants” (p. 248). After nodes were created for initial themes that emerged, these codes were tested on a sample of text. Coding then continued on all text and nodes added and modified as themes emerged. Each reference to a node was coded; references varied in length as stated above. When the coding was completed it was assessed for consistency (Wildemuth, 2009, p. 311-312).

Focus Group Interviews

A key strength of focus groups is their ability to efficiently generate ideas amongst participants (Wildemuth, 2009, p. 243). As transliteracy is a new concept for many, this format was effective for participants to share and develop ideas that had not been articulated previously. The sample of focus group participants was drawn from public library staff. As the IMLS states (2009), the change in workforce demands is one of the most significant factors in 21st century skills. Because of the importance placed on literacy related to today’s workforce, the sample was narrowed to adult services public librarians who deal primarily with the age group that represents the U.S. workforce. Another factor was the geographic limitations created by an in-person focus group. Participants recruited were located within an hour’s drive from the focus group site.

To gather as diverse a group as possible, participants were recruited from five separate local public library systems. A manager in each system was asked to distribute an email to their staff. The email contained a description of the focus group, description of what participation required, travel reimbursement information, and information on procedures for those interested in participating. Ultimately, three public library staff members from three different library systems were recruited to take part in the research

study. Two participants were paraprofessional staff with the title of Library Assistant, and one participant holds an MLS and serves as a Librarian. Experience in the library field ranged from four to seven years. While none of the participants had worked exclusively with literacy in the past, they all identified aspects of their job that deal directly with literacy on a daily basis.

The focus group was held on UNC's campus on Friday, February 17, 2012. All participants were reimbursed for their travel costs via a Carnegie Grant received through the School of Information and Library Science, UNC- Chapel Hill. Focus group participants were provided with the standards that the researcher analyzed and the Focus Group Guide (Appendix A) which included the questions to be discussed. The participants were asked to review these materials before the focus group met in preparation for discussion.

During the focus group, the moderator posed questions to the participants, ensured that each participant had a chance to respond, and asked clarifying questions. The moderator did not direct the conversation more than necessary so that conversation flowed naturally based on participants' interactions. Three questions were posed during the focus group:

1. What themes did you find present across all three literacy standards that would be necessary to succeed in each of these individual literacies?
2. The standards lay out ideal skills and knowledge for that particular literacy, based on your interactions with and observations of patrons, are these the skills and knowledge that you find to be most pertinent?

3. Considering the need for public library professionals to provide resources and services to address today's literacy needs, what would be more helpful in guiding professionals - a skillset that focuses on the bigger concepts or a skillset that focuses on a more detailed list of practical tasks and skills?

The focus group was audio recorded and participants' responses were transcribed and imported into NVivo, as a text document to be coded. Initial coding begun with the standards continued to be developed as the focus group transcription was coded. Additional nodes were created for references that had not been mentioned by the Standards sources and thus did not fall within the existing coding structure. All references made in the transcription were classified as Public library staff. The transcription from the Focus Group was treated as one source, and not coded to specify which participant made particular references. This is both to secure participants' identities and to reflect the nature of a focus group. Many of the comments made built off of what other participants had discussed and cannot be fully attributed to any one participant.

Limitations of Study

The limitations of this study are a consequence of its small scale. Only one researcher conducted the content analysis of the literacy standards; additional researchers using the coding scheme would help to validate its strength. The small number of library staff included in the focus group also presented a limitation to the range of perspectives and experiences represented. Multiple focus groups in different geographic locations with a larger number of participants in each session would provide a more representative sample of perspectives from library professionals. Due to the small sample size this study

is not generalizable to the field as a whole. These and other areas for further research are identified below.

Results

The use of data from two sources allowed for more thorough analysis and created a comparison of ideals (standards) versus reality (observations from the field). Both sets of data are enhanced and contextualized when analyzed in combination with one another (Wildemuth, 2009, p. 161), which led to more developed conclusions.

Several overarching themes emerged through coding and were designated as the parent nodes in the coding structure. These larger themes included:

1. Evaluating Information
2. Finding Information
3. Learning and Teaching
4. Literacy (general concepts of and issues regarding literacy) references
5. Participatory (issues of creation and sharing of information) references
6. Society (skills and issues with far-reaching impact or implications)
7. Use of Information

More specific themes were identified and were placed under the corresponding parent nodes as child nodes. Table 1 provides an outline of the entire node structure used for coding. References were coded with as many nodes as were relevant, which sometimes included both a parent node and child nodes that fell under that parent node.

Table 1

Node Structure Outline: Parent and Child Nodes (Parent nodes are in bold)

<ul style="list-style-type: none"> • Evaluating Information <ul style="list-style-type: none"> ○ Audience ○ Authorship ○ Bias ○ Credibility ○ Currency ○ Purpose-Intent ○ Interpret ○ Lack of questioning ○ Quality ○ Relevance 	<ul style="list-style-type: none"> • Finding Information <ul style="list-style-type: none"> ○ Access ○ Diverse sources ○ Forms of information ○ Identifying information needs ○ Locate information ○ Media ○ Representations ○ Search Strategy ○ System ○ Technical Skills ○ Technology ○ Visual images 	<ul style="list-style-type: none"> • Learning and Teaching <ul style="list-style-type: none"> ○ All learners ○ Apply existing knowledge ○ Comfort or lack thereof ○ Education/Instruction ○ Educators ○ Individual learning ○ Interdisciplinary ○ Learning methods ○ Lifelong learning ○ Self-motivation/Personal Interest 	<ul style="list-style-type: none"> • Literacy <ul style="list-style-type: none"> ○ Basic Skills ○ Broad concepts ○ Common aspects ○ Digital/Technological literacy ○ Information literacy ○ Literacy standards ○ Media literacy ○ Metaliteracy-Multimodal literacy ○ Theoretical ○ Transliteracy ○ Unique aspects ○ Visual literacy
<ul style="list-style-type: none"> • Participatory <ul style="list-style-type: none"> ○ Citizenship ○ Collaboration ○ Communication ○ Create ○ Creativity ○ Digital citizenship ○ Generate new ideas ○ Innovation ○ Presentation ○ Publish/Share 	<ul style="list-style-type: none"> • Society (I) <ul style="list-style-type: none"> ○ Benefit ○ Cultural understanding ○ Employer expectations ○ Global awareness ○ Group benefits ○ Impact ○ Libraries/Library staff ○ Limitation of resources 	<ul style="list-style-type: none"> • Society (II) <ul style="list-style-type: none"> ○ Need for instruction ○ Potential harm ○ Professional development for library staff ○ Provision of resources ○ Stakeholders ○ Unprepared for workforce 	<ul style="list-style-type: none"> • Using Information <ul style="list-style-type: none"> ○ Analysis ○ Critical thinking ○ Decision making ○ Ethics ○ Research ○ Solve problems ○ What to use when

Of the 82 total nodes, only 12 were referenced in all of the Standards documents and by the focus group. These are shown in Table 2.

Table 2

Nodes Referenced by all sources

Parent Nodes	Child Nodes- parent nodes in parentheses
<ul style="list-style-type: none"> • Evaluating information • Finding information • Participatory 	<ul style="list-style-type: none"> • Audience (Evaluating Information) • Diverse sources (Finding information) • Technology (Finding information) • Apply existing knowledge (Learning and teaching) • Individual learning (Learning and teaching) • Lifelong learning (Learning and teaching) • Communication (Participatory) • Publish/Share (Participatory) • Group benefits (Society)

As Table 3 shows, there were differences in the perceived value of each skill. That is, while the creators of the standards perceived a skill to be important, the focus group participants did not see much emphasis on the skill in their daily experience with

patrons. Evaluating information is an example of this. As one participant stated, “[Patrons are] not coming to the library to learn how to analyze a source, they don’t care and they’re not going to begin caring just because you’re saying, ‘Oh, where did that come from? What news source did that come from?’” Another participant stated, “I’m not sure that I’d have people that were really interested in getting educated a little bit more about protecting yourself online or critical thinking skills about where you’re looking [for information], what you’re using.” Though the participants believed a number of evaluation subskills were important they noted that because of patron demands and a need for basic skills, concepts related to Evaluating Information were not emphasized at their libraries.

Table 3

Parent Node References in Standards Sources vs. Public Library Staff Source

Parent Node	Percent of References from Standards	Percent of References from Public library staff
Evaluating Information	72.73%	27.27%
Finding Information	64.15%	35.85%
Learning and Teaching	85.37%	14.63%
Literacy	25%	75%
Participatory	77.78%	22.22%
Society	24.21%	75.79%
Using Information	33.68%	66.32%

A more meaningful illustration can be found in Table 4 which shows the nodes that were most frequently referenced. These were identified as any node that represented 1.5% or more of the total references made by all sources. Table 4 also shows which source (the standards documents or the focus group participants) placed a greater emphasis on that particular node. Again, while a particular node such as Participatory was not referenced as frequently by the Public library staff, this does not mean that child nodes associated with this parent node were not referenced.

Table 4
Nodes Representing More Than 1.5% of the Total References

Individual Node (both parent and child)	Percent of References	References by Standard sources	References by Public library staff source
Learning and Teaching	5.59%	23	72
Society	5.59%	32	63
Evaluating information	5.18%	64	24
Forms of information	4.65%	47	32
Literacy	4.47%	19	57
Using information	4.24%	56	16
Finding information	3.12%	34	19
Technology	2.83%	30	18
Need for instruction	2.53%	7	36
Participatory	2.41%	35	6
Libraries/Library Staff	2.12%	2	34
Individual learning	1.88%	16	16
Comfort or lack thereof	1.82%	0	31
Diverse Sources	1.82%	21	10
Basic Skills	1.77%	0	30
Communication	1.77%	25	5
Self-motivation/Personal Interest	1.71%	0	29
Visual literacy	1.71%	19	10
Create	1.59%	18	9
Purpose-Intent	1.53%	16	10

This look at the most referenced nodes provides some interesting insights. For example, three of the most frequently referenced nodes were discussed only by the Public library staff: Self-motivation/personal interest, Comfort or lack thereof, and Basic skills. The general focus of these in addition to the other nodes referenced more frequently by the Public library staff than the Standards (Libraries/library staff, Need for instruction, Learning and teaching, Literacy, and Society), suggest that the Public library staff place greater emphasis on the practical applications of literacy as it relates to patrons, whereas the Standards focus more on theory and ideals. The areas emphasized by the Public library staff source focus on how patrons do things (Self-motivation/personal interest, and Comfort or lack thereof), the basic skills that individuals need today (Basic skills and Literacy), the support and resources needed to help people gain these skills

(Libraries/library staff, Need for instruction, and Learning and teaching) and the importance of literacy skills for both individuals and the larger community (Society). The lack of references to these skills and subskills in the Standards documents suggests an assumption that individuals receive training in these skills elsewhere, and that libraries do not need to address them. However, the evidence from the public libraries is that many individuals lack these skills, and that there is a significant need for training in these areas.

In addition to the nodes mentioned above, there are an additional 8 nodes referenced by only the Public library staff. Those nodes, with their parent nodes noted in parentheses, are as follows: Lack of questioning (Evaluating information), Broad concepts (Literacy), Common aspects (Literacy), Digital/Technological literacy (Literacy), Theoretical (Literacy), Presentation (Participatory), Employer Expectations (Society), Limitation of resources (Society), and Professional development for library staff (Society). The absence of reference to these nodes in the Standards sources, indicate that there are a number of themes which hold importance to the Public library staff interviewed that current literacy standards do not address. This further illustrates the need for a defined skillset and guidelines of how to help patrons achieve each skillset within the particular environment of the public library.

There were several nodes that were not referenced by the Public library staff source, but that were included in the Standards documents. These nodes represented two main groups of skills: skills that refer to the use of information on a more complex level than self-edification (Decision making, Analysis, Research, Critical thinking, Information literacy, Representations), and those that referred to a greater role for individuals in the creation of new and innovative information (Generate new ideas, Collaboration,

Creativity, Innovation). While the Public library staff interviewed did make reference to the creation of information, they addressed it at a more basic level. That is, for personal or professional needs instead of a contribution to scholarship or other more far-reaching purposes. Though the Public library staff participants recognized a desire for patrons to use information in more complex manners, they observed that the majority of their patrons had more basic skills to tackle before they would be able to move on to more complex tasks. One participant provided an example of the type of questions librarians encounter on a daily basis: “Day to day it really is just: “How do I open this program? This window to the world, this internet thing, where do I start? Why does this look different, why does this card catalog come up instead of Google?”” The participant went on to say that, “Just getting people to understand those basic things, not necessarily how to do everything, but just understanding how it works, how they can begin to access it and how to take it from there” is generally the type of assistance provided at the public library.

Specific comments from the focus group participants provide further context to the nodes emphasized by the Public library staff source and shown in Table 4. Below are responses from the participants that succinctly explain some of the key points uncovered by the focus group discussion.

Question 1: What themes did you find present across all three literacy standards that would be necessary to succeed in each of these individual literacies?

“Broadening of the definition of literacy and certainly expanding it from what we traditionally thought of... being able to work across different formats, being able to discern what is good and what is bad and then expanding that definition of not just being

able to use a word processor but being able to use other sort of.”

“The learning process is iterative, it is building on itself perpetually...the need for ongoing education and need for active engagement from both sides.”

Question 2: The standards lay out ideal skills and knowledge that individuals would have, based on your interactions with and observations of patrons, are these the skills and knowledge that you find they are truly most in demand?

“Let’s face it, people need to learn Microsoft office, that has almost become the building block of what you need to be able to do if you are computer literate...your ability to actually conduct internet searches has become sort of a building block of what you need to do...those are the things that employers assume.”

“It’s just a matter of the curiosity and the comfort so that that person feels like this is an easy thing I can do, whereas one little change to their routine suddenly is just like I’m not even going to do this.”

“But the literacy part of that, just being able to engage with the world such as it is, if you choose not to, become more and more isolated even socially and educationally. It’s dealing with the world as it is right now, so I think there is not the option to.”

I teach them to search for the Google search bar and explain to them if your homepage at home is a search engine this little tiny bar at the top is the same thing, because a lot of people, not a lot of people, but some people who would ask that are uncomfortable with URLs, they don’t know how to get to their email unless they type into a search engine yahoo mail or what have you. And I think that’s been a big key is just trying to point out

similarities even if on the surface they don't look similar, give them one or two reference points that will give them a beacon.

"In reality graphic design is actually becoming also something that people need to have in their toolbox because you know certainly the way that they acquire information can vary widely based on just what their gut reaction is to a webpage."

Question 3: Considering the need for public library professionals to provide resources and services to address today's transliteracy needs, what would be more helpful in guiding professionals- a skillset that focuses on the bigger concepts or a skillset that

"[These standards] are meant for academia, because most of what I encounter day-to-day is a much narrower scope. Just really basic things like aside from being able to comfortably access things, just the ability to recognize source and context and encouraging curiosity to learn things more on their own...I guess it's definitely very abstract...I think probably the closest thing to something I would actually share with a patron if I were looking at this would be the National Association for Media Literacy Association, the second page with the breakdown there."

"It will constantly need to be updated, and it's not that I'm averse to learning, I need to and we all need to just to survive but something more broad minded helps me then think about the problem in a more um manageable sort of way... So rather than skills I want to think about ideas."

"I think that when you start with the bigger picture you can kind of plug in each problem, think: what does this fall under, what can I do with this? And then go into more specific things. When you have a more general framework to work with I think it's a lot easier to start big and work your way down."

Discussion

The focus group with public library staff demonstrated the need to focus on how to get people where they need to be in terms of transliteracy and literacy as we understand it today. These are vital skills that individuals need to succeed not just in educational settings but in the workplace. The evident discrepancy in themes emphasized by the standards versus the public library staff highlight a need for more communication between practitioners who utilize these standards (library staff) and the developers of standards (academics). Though standards are by nature more theoretical and to some degree idealistic, they must reflect the practical needs of the individuals they will be applied to in order to be effective. The focus group drew attention to the danger of making assumptions of what skills and knowledge individuals possess, and thus the need to have standards that incorporate the basic elements needed in order to be able to achieve the more complex skills.

As Arnonel & Reynolds (2009) discussed, individuals need to feel comfortable to move beyond interface to content. Dunaway (2011) also highlighted the importance of the connection between the user and the interface. However, many standards taught to library science students as well as professionals in the field, focus on the content piece and bypass the interface component. It is necessary that the importance of both of these aspects be communicated to students and professionals so that they are aware of the range of needs that they will be confronted with, as well as the skills and knowledge they will need to provide instruction on. To teach basic skills requires different instruction methods than it does to teach individuals who already have a base knowledge to build on. Because of the lack of emphasis on basic skills instruction in library science programs, many

librarians find themselves unequipped to provide basic skills instruction. For library science students interested in public services (particularly reference and instruction), this is an area that needs to be addressed in the curriculum.

The public library staff participants addressed concerns on this topic, and note that they feel overwhelmed by all that there is to teach patrons today. However, they were not as interested in the development of a set of specific skills as they were in the discussion of broader concepts on how to teach transliteracy skills. This comment from a participant provides the general perspective of the participants:

“I would say that our issue in the public library isn’t as big as visual literacy, we would love to get them to computer literacy before we could even make another step up...we’re still addressing basic technology issues. That and they’re not interested necessarily in getting beyond a certain level... And they may never ever care about whether or not the sites that they go to are really valid sites.”

The participants noted several times that though expectations for employees’ literacy skills are higher than in the past, many individuals lack either the comfort level to learn new technologies or lack the motivation to do so on their own.

The public library can help motivate individuals to move beyond the level of basic skills by providing context as to why these higher level skills are important. Public library staff need to better incorporate the content aspects of the existing literacy standards, and not focus purely on the interface element. Both Huvila (2011) and Mackey and Jacobsen (2011) provide strong evidence for the participatory nature of literacy today, and when the expectations of employers are considered it is obvious that

individuals need to have the skills to do more than just consume information. Public libraries already work to ensure their patrons have opportunities to develop basic level skills and recognize that these need to come first. What public libraries need to do going forward is to explore how they can incorporate instruction and resources for the development of more complex skills.

A set of standards that incorporates the range of basic to more complex skills would address the needs of both library science programs and library professionals identified above. While this study was not extensive enough to produce a fully developed skillset, there were clear themes and areas of priority identified by the public library staff that should be addressed by the skillset that is eventually solidified. In addition there are skills that the standards discuss which are also very important for individuals to achieve. These cannot be ignored, but they must be seen realistically as part of a scaffolding process for learners that begins with more basic skills that must be achieved before learners can move on to the more complex skills. Therefore, a skillset organized by level offers additional guidance to library staff and other educators. This organization can be used to assess what levels have already been achieved by an individual, and thus what levels they still need assistance with. Individuals will come to the public library with varying levels of experience, so a tool such as is outlined below will help library staff assess how to guide a particular patron to achieve transliteracy. Based on these considerations, the following is an outline of the areas that need to be addressed, organized by their appropriate level.

- First Level
 - Beginning from the basics
 - This entails not making assumptions about what people know and making training and resources from the most basic up to more advanced available. (Further exploration of what basic skills should be established before individuals can comfortably move on to more complex actions needs to take place.)
 - Reading
 - Today this involves issues of access as much reading content is found electronically. Therefore knowing how to search for and access information in a variety of formats and platforms is a prerequisite for reading itself.
- Second Level
 - Finding information
 - This process begins with identifying an information need. Once an individual has an idea of what they are looking for, they must know where and how to access information. Today that involves many different types and formats of sources, as well as the use of search strategies.
 - Writing
 - Not just the mechanics of writing are essential now, at this point in time one has to know how to use a word processor to create, edit and produce writing.
- Third Level
 - Evaluating Information
 - To evaluate the credibility of information, individuals must question a number of elements: author, audience, currency, purpose and bias. In addition, this process also requires individuals to determine a resource's relevance for their information need.
 - Using Information
 - Individuals will have a diverse range of uses for the information that they find, but the use of it entails a number of common skills: analysis, critical thinking, decision making, problem solving, and awareness of ethical issues.
 - Interacting/Participatory
 - This refers to a number of different skills and functions including: sharing information, presenting information, manipulating information and creating information. These skills

may manifest themselves in the use of a large range of tools, such as: MS PowerPoint, WordPress, Twitter, or Photoshop.

- Throughout all levels
 - Patrons: Motivation
 - Libraries need to provide context to patrons of what can be gained from achieving these skills as well as potential harm in not gaining this knowledge (such as limited job prospects). A context for why lifelong learning is so important and an understanding of its iterative process is needed for individuals to grasp the value of these skills.
 - Librarians: Preparing staff for instruction
 - Professional development as well as provision of resources is needed for library staff to effectively meet patrons' needs in the ever evolving technology and literacy landscape. This includes knowledge of various learning methods and instructional techniques and how to incorporate these into instruction.
 - Continual assessment of literacy and its definition will be needed to keep this framework relevant, particularly in respect to the literacy demands of schools and employers. New literacies or specific new skills must be identified and addressed at the appropriate skillset level.
 - Partnerships will need to be formed when funds and staffing are not sufficient to provide the needed resources and instructions to help patrons achieve these skills.

The public library is in a position to implement all levels of such a skillset. Public libraries offer technology classes and other programming at a variety of levels from the very basics. There are also many opportunities for public libraries to partner with other organizations when they lack resources (money, people, space, or time) to offer particular programming themselves. In addition to programming, the library can refer patrons to services offered by other organizations in the area, and include resources in their collections (both print and electronic) that individuals can use to educate themselves in these skills. In regards to motivation, the library can provide programming, handouts or other informational materials that highlight the skills that are important for individuals to

have and why they are important. To increase motivation libraries need to let patrons know what relevant services and resources are available through the library and connect with patrons so that they are comfortable enough to approach staff with questions.

Other areas highlighted in the focus group discussion centered on how to teach transliteracy skills. An important component of this is to provide guidance on instruction methods and goals to library staff. All participants noted that staff development is extremely important and that it is not only difficult for patrons but also for staff to keep up with all of the emerging technologies. Training and time to explore new technologies and modes of communication need to be incorporated into work time.

It should be noted that though none of the focus group participants were familiar with the term transliteracy prior to the study all participants identified aspects of their daily job duties that deal with the concepts and skills of transliteracy. As Ipri (2010) noted, libraries address these issues, they just don't use the term transliteracy. However, it is clear that in order for library staff to effectively help their patrons achieve transliteracy, they need a skillset and further guidance to help them focus their efforts. If we look back at the skills that the IMLS (2009) identified – learning and innovation skills; information, media and technology skills; and life and career skills – there is a vast array of skills that fall under these broad categories and for many people the only resource they have to gain these skills is the public library.

Conclusions

This initial study has the potential to spur further important research on the topic of transliteracy. Defining a fully developed set of skills required to obtain transliteracy is

the first concrete step that needs to be taken. This skillset would define for both patrons and the library staff who assist them, a framework for what skills are needed to move throughout different literacies and forms of communication to interact with the necessary information in their life and work. Additional focus groups with larger participant pools focused on the identification of specific skills to incorporate into the skillset will be needed. Once a skillset is identified this will greatly help library staff determine what they can teach and select resources to provide. Education and Information and Library Science professionals agree that as the nature of literacy has changed so too must our pedagogical approaches to literacy training. There are calls for multimodal and multiliteracy approaches to instruction; however, a more defined praxis is necessary to move forward. As employers require workers to have increasingly complex literacy skills, employees need the ability to use particular literacies that are identified upon hire and also the ability to learn and adapt to new literacies as technologies change and develop. However, there is an identified gap in the skills that employers seek and the skills that potential employees actually possess. We therefore need to increase the opportunities we provide for individuals to gain these skills.

Most of the research about 21st century or contemporary literacy has focused on youth. While it is necessary to emphasize transliteracy training in schools to prepare our future workforce, there is also an immediate need amongst the adult population, in particular job-seekers. Further analysis on the contemporary literacy needs of adults is much needed, especially to strengthen the skills of our workforce and thus our economy as a whole. Additional helpful areas of study would examine how libraries can provide

effective transliteracy resources and instruction. Case studies may be particularly helpful in this area to examine strengths and weaknesses of different methods.

While this research is focused on support for transliteracy in the public library setting, it is highly relevant to those who address literacy in other settings as well. This includes library staff, educators in school and academic environments, literacy experts, and many employers. However, the findings of this study will be of particular interest to public libraries which assist a growing number of information needs for job seekers; this population is in dire need of transliteracy skills for the job application process and for tasks on the job once hired. Public libraries are suited very well to provide such services and resources. Lifelong learning is a focus of public libraries; they serve a range of individuals, diverse in their age and knowledge. As technologies and modes of communication continue to evolve, so will literacy; thus, individuals must continue to learn about these new literacies as they develop. A skillset that can be applied to these new literacies will be invaluable. Individuals come to the public library at their point of need and the library in turn can provide the appropriate resources. If an emphasis is placed on the role that public libraries can play in the development of a transliterate society, hopefully resources for public library staff to stay abreast of new technology, formats and platforms will be increased. This in turn will draw attention to public libraries' continued relevance not in spite of, but because of the changing information world. This needs to be a conscious effort on the part of public library staff.

All libraries and museums – and the people they serve – stand to benefit from becoming more intentional and purposeful about accommodating the lifelong learning needs of people in the 21st century, and doing this work collaboratively in alignment with community needs. Therefore, it is critical that we envision, define, and implement library and museum

approaches that integrate 21st century skills in more tangible, visible ways (IMLS, 2009, p. 9).

Transliteracy can provide individuals the tools needed to gain 21st century skills. Thus, this study is an important first step towards the creation of a skillset that will be of tremendous value and which when fully developed can be adopted by public libraries in their support of lifelong learning.

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Appendix A – Standards and Guidelines Distributed to Participants

Focus Group Guidelines

The moderator's role is to guide the conversation. There are three main questions (see below) that will be posed by the moderator. These are the basis of the conversation. The moderator will not intervene in the discussion, except to ask clarifying questions, ensure that each individual has the opportunity to share their input, and to move to the next question as needed.

As a participant, your role is to come prepared, having read and reviewed the standards listed below. During the focus group, you will provide responses to the questions and any additional relevant information that you deem appropriate. Lastly, it is necessary that each participant listens and responds respectfully to others' comments in order to ensure a comfortable and productive environment.

Existing Literacy Standards to be Discussed

- **Visual**
 - Association of College & Research Libraries. (2011). *ACRL Visual Literacy Competency Standards for High Education*.
<http://www.ala.org/ala/mgrps/divs/acrl/standards/visualliteracy.cfm>
- **Media**
 - National Association for Media Literacy Education. (2012).
 - *1-Page Summary of the Core Principles* <http://namle.net/wp-content/uploads/2009/09/NAMLECorePrinciplesOneSheet2.pdf>
 - *Core Principles Key Questions* <http://namle.net/wp-content/uploads/2009/09/NAMLEKeyQuestions0708.pdf>
- **Technological literacy**
 - International Society for Technology in Education. (2007). *NETS for Students 2007*.
<http://www.iste.org/standards/nets-for-students/nets-student-standards-2007.aspx>

Focus Group Agenda

- Moderator introduction of study and purpose of focus group (5 minutes)
- Moderator review of guidelines and answer any questions (10 minutes)
- Moderator poses first question: (20 minutes for discussion)
 - o *Question 1: What themes did you find present across all three literacy standards that would be necessary to succeed in each of these individual literacies?*
- Participants respond to the first question. Each participant will have a chance to share their input and then the group may respond to or ask questions of their fellow participants.
- Moderator poses second question: (20 minutes for discussion)
 - o *Question 2: The standards lay out ideal skills and knowledge that individuals would have, based on your interactions with and observations of patrons, are these the skills and knowledge that you find they are truly most in demand?*
- Participants respond to the second question. Each participant will have a chance to share their input and then the group may respond to or ask questions of their fellow participants.
- Moderator poses third question: (20 minutes for discussion)
 - o *Question 3: Considering the need for public library professionals to provide resources and services to address today's transliteracy needs, what would be more helpful in guiding professionals- a skillset that focuses on the bigger concepts or a skillset that focuses on a more detailed list of practical tasks and skills?*
- Participants respond to the third question. Each participant will have a chance to share their input and then the group may respond to or ask questions of their fellow participants.
- Moderator gives participants the chance to share any other relevant thoughts or observations. (10 minutes)
- Moderator concludes the session, thanks the participants for their involvement and distributes travel reimbursement compensation. (5 minutes)