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Adult Functional Literacy: Prominent Themes, Glaring Omissions, and Future Directions

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Abstract: We analyzed 90 recent publications related to adult functional literacy (FL) in order to: (a) understand what is known about the construct of FL and the ways in which it is conceptualized and applied, and (b) analyze inconsistencies and gaps in this work. We analyzed each source using an analytic template, organizing data in a spreadsheet for pattern analysis, and conducting a thematic analysis of sources' key ideas. Our analysis identified common themes across the literature, including profiles of cognitive FL skills, the roles of context and text in FL, and the ways in which FL assessment is both conceptualized and critiqued. Our analysis also identified implicit assumptions and glaring omissions in this body of work: the prevalence of deficit assumptions about low-literate adults, the conflation of English learners and low literacy, and the omissions of writing and community considerations from discussions of FL. Future directions for FL scholarship include developing theoretical models based on research with adults instead of children, increasing scholarly attention to adult writing, including learner's voices and perspectives in research, and reviewing literature related to English learners and FL instruction.

Keywords: adult literacy, functional literacy, research



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Introduction¹

Since World War II, the construct of *functional literacy* (FL) has guided much educational policy and practice, particularly in adult literacy (de Castell, Luke, & MacLennan, 1981). Moreover, because one of the goals of K-12 education is to provide young people with the literacy skills necessary for life, K-12 educators have an interest in better understanding the kinds of out-of-school literacy skills and practices that students will need to use in their adult lives (Hull & Schultz, 2001). The construct of FL is also applicable in areas such as healthcare, the workplace, and family literacy (e.g., Adkins & Corus, 2009; Bates & Holton, 2004; Cuban, 2009; Jurmo, 2004; Perry, 2009; Rose, 2003, St. Clair & Sandlin, 2004). Our recent analysis (Shaw, Perry, Ivanyuk, & Tham, 2017) found that researchers across a variety of fields have published research related to FL since 2000. These fields include education, medicine and healthcare, governmental organizations, psychology, agriculture, marketing and business, sociology, economics, English, science and technology, and

Africana studies. Thus, contemporary studies indicate that the interest in FL for adults is broadly based.

Despite the increased cross-disciplinary interest and the need to understand FL and its applications, only four literature reviews have been published that touch upon the concept of FL since 2000 (Hepburn, 2012; Hull & Schultz, 2001; Mikulecky, Smith-Burke & Beatty, 2009; Witte, 2010). None of these reviews, however, focuses solely upon the construct of FL: Hepburn (2012) and Witte (2010) both focused upon health literacy. Mikulecky, Smith-Burke, and Beatty (2009) discussed adult literacy as a whole and only looked at publications from 2006; Hull and Schultz (2001) provided a theoretical overview of literacy in out-of-school settings, much of which emphasized K-12 students. As a result, an updated review focused specifically on the construct of adult FL is warranted in order to (a) understand what is known about FL and the ways in which it is currently conceptualized and applied in literacy and related fields in the U.S., and (b) analyze inconsistencies, gaps, and problems

¹ Throughout this article we only use personal pronouns to refer to ourselves. We have foregone the use of pronouns altogether with respect to other authors cited

in this work, in an effort to recognize the fluid nature of identity and to not make assumptions about the ways that individuals identify or refer to themselves.

that should be addressed. Toward this end, we synthesized literature regarding FL published between 2000 and 2014.

Theoretical & Conceptual Framework

Literacy is a term that has perhaps as many individual meanings as there are researchers who investigate it. However, four definitions commonly undergird national assessments of adult FL, as well as educational policies regarding adult literacy (see Table 1); these definitions provided a foundation for our examination of FL. Although the UNESCO (1978) definition is the only one to refer specifically to FL, both official definitions in the U.S. (NAAL, 2003; NLA, 1991) use the term “function” in connection with literate behavior. Both the U.S.’s National Literacy Act and the UNESCO definition refer to reading and writing of text, while the other definitions use language that more generally defines literacy as “using printed and written information” (National Assessment of Adult Literacy, 2003) and the “ability to understand and employ printed information” (OECD, 2000). All four definitions situate literacy within the individual and note that literacy is part of individual functioning and development, while the two international definitions (OECD and UNESCO) additionally indicate that literacy is necessary for functioning in groups and communities. Although these official definitions, along with the 90 sources in our analysis, use both *literacy* and *functional literacy* to refer to the same construct, we will use FL throughout this manuscript.

These official definitions, which frame most FL scholarship, are not clearly aligned with a particular theoretical orientation toward literacy. Reflecting the broader field of literacy education, FL

scholarship represents a range of theoretical orientations (e.g., Hepburn, 2012). Cognitive frameworks “attempt to explain the internal workings of the mind as individuals engage in complex mental activities” (Tracey, Storer, & Kazerounian, 2010, p. 109). In addition to focusing on individual minds, these theories emphasize itemized skills and components, viewing print as “a code that represents phoneme/grapheme correspondence” in alphabetic languages (Purcell-Gates, Jacobson, & Degener, 2004, p. 43). Cognitive theories related to reading and writing, such as Chall’s (1983), Ehri’s (1999), and Bear, Invernizzi, Templeton, and Johnston’s (1996), focus on stages of spelling and writing development, and processes or skills related to phonemic awareness, decoding and

encoding written language, vocabulary, fluency, and comprehension (Purcell-Gates, Jacobson, & Degener, 2004). Common cognitive theories cited in the FL literature included information-processing models, the simple view of reading, and the set of basic reading skills identified by the National Reading Panel (NRP)

(2000) which includes decoding and word-recognition skills, vocabulary, comprehension, and fluency.

In contrast, sociocultural theories of literacy focus on *practices*, what people *do* with literacy, the contexts in which those practices occur (e.g., Rand Reading Study Group & Snow, 2002), as well as values, attitudes, beliefs, feelings, and social relationships associated with those literate activities (Barton & Hamilton, 1998; Perry, 2012; Purcell-Gates, Jacobson, & Degener, 2004). Sociocultural perspectives therefore reflect beliefs that language (including literacy) “always comes fully attached to ‘other stuff’: to social relations, cultural models, power and politics, perspectives on experience,

“Literacy is a term that has perhaps as many individual meanings as there are researchers who investigate it.”

values and attitudes, as well as things and places in the world” (Gee, 1996, p. vii), and that language (and, thus, literacy) is essentially dialogic and constructed (Bakhtin, 1986). Sociocultural theories commonly cited in the FL literature include literacy as social practice and the New Literacy Studies (Gee, 2000; Street, 2003), Brandt’s (1998) theory of literacy sponsors, social activity theory, and Hymes’ (1994) ethnography of communication. Often connected with sociocultural theories, critical theories use a political lens to understand literacy and education, specifically connections to ideologies and power relationships. Freire’s (2001) work was most commonly cited in FL scholarship: According to Freire, literacy involves reading both the *word* and the *world*, a perspective extended to include agency and identity (e.g., Lewis, Enciso, & Moje, 2007).

Our perspectives also reflect this theoretical diversity. Perry (2009, 2012) uses the theory of literacy as social practice to research the intersection of literacy and culture across a wide variety of cultural and national contexts, and she coordinates a free, community-based English program for adult immigrants and refugees. For the past two decades, Shaw has been involved in ABE, GED, and ESOL adult education, assessing the needs of adult readers and the services they receive through a cognitive lens. Ivanyuk taught English to college students for six years; sociocultural perspectives frame her emerging research in the English learning and development. Tham taught high school for 12 years in her native country of Malaysia, and her research in individual tutoring of emergent to striving readers is guided by sociocultural and constructivist perspectives. Although each of us brought a different theoretical lens, we collectively adopted the socio-cognitive framework described by Purcell-Gates, Jacobson, and Degener (2004). This framework (a) brings together two perspectives – cognitive and sociocultural – that are not often in dialogue, and (b) views seemingly contradictory

explanations for the phenomenon of literacy as complementary.

Method

The analysis presented here reflects one aspect of a larger review of recent scholarly literature addressing the concept of *functional literacy*. Other components of this work analyzed the institutional affiliations of FL researchers (Shaw, Perry, Ivanyuk, & Tham, 2017) and the various definitions of FL used in the literature (Perry, Shaw, Ivanyuk, & Tham, 2015). In this analysis, we focus primarily on our qualitative analysis of the literature to understand current themes, as well as what is missing, with respect to FL.

Data Sources and Collection

We searched seven electronic databases (Google Scholar, ERIC, PsychInfo, Academic Search, Education Full Text, JSTOR, and ProQuest) using several search terms. We began with search terms such as *FL*, *functional illiteracy*, *adult basic literacy*, and *adult basic skills*. Noting that these searches also brought up sources on the topics of *health literacy*, *workplace literacy*, *family literacy*, and *assessment*, we added these as keywords for our search. This initial search resulted in 238 publications.

Several criteria allowed us to limit the inclusion of sources, including (a) type of learner, (b) national context, (c) date of publication, and (d) type of source. Because FL is a term that is typically reserved for adults, we limited sources to those focused upon adults (or adolescents who have left school) with low levels of literacy. The initial sample included many publications on adult English learners; because of our focus on FL, we excluded those focused solely on learning of English, but included those that offered specific discussions of functional or low literacy in English learners. The initial search also returned results from a variety of

international contexts. Because we were focused on the U.S. context, we limited our analysis to U.S.-focused sources. However, we included international sources that provided discussion of U.S. research and policy among those of other countries. The 2000-2014 date range (a) allowed us to see the transition between two large-scale assessments of FL, the 1994 National Adult Literacy Survey (NALS), and the 2003 National Assessment of Adult Literacy (NAAL), which represented focal points of much FL scholarship, and (b) reflected the *current* ways in which FL is discussed in the U.S. We used three criteria for selecting types of literature for inclusion. First, peer-reviewed publications, including scholarship other than research, represented FL as it is currently applied. Second, reports from government agencies indicated the ways in which conceptualizations of FL are applied in policy contexts. Finally, we sought books written about FL research or theory. We excluded dissertations, book reviews, and publications that were not peer-reviewed. Our initial search returned many sources that were focused on instruction and techniques for teaching FL to adults. While some of these pieces undoubtedly were grounded in research or even written by authors included elsewhere in our analysis, we could not easily distinguish between those sources and others that did not reflect research. For this reason, and because our research focus was on the *concept* of FL, and not on *how* to help adult learners with literacy, we excluded pieces that were focused on FL instruction. Our final sample of 90 sources included 82 journal publications, 7 governmental reports, and one book monograph.

Analysis

Based upon the work of Rogers and Shaenen (2013) and Compton-Lilly, Rogers, and Lewis (2012), we developed an analytical template (see Appendix B) to use with each that reflected our overall research

focus on definitions/conceptions of FL and how they are applied in the literature, as well as findings or key ideas that might reflect the current body of FL knowledge. To refine this document, each co-author completed the draft template with an individually-selected source, then the group discussed areas that needed to be clarified. After two rounds of template revision, we finalized decisions about what categories of information to include or exclude in certain sections. Phase I of analysis then involved the four authors each reading the same four sources per week, with one author assigned to complete the template for a given source. All authors then discussed each source, reviewed the template, and reached consensus about suggested changes. Although we compiled a variety of information in the templates, data relevant for this analysis included: FL-related keywords, type of source, methodology used (if applicable), theoretical frameworks, key findings, implications, and future directions discussed in the source.

Phase II of our research involved developing a spreadsheet based upon the data gathered in the analytic templates, then applying various analyses to these data. Relevant to this analysis, we examined both (a) the keywords included in all sources (e.g., FL, adult basic skills, workplace literacy, etc) and (b) the methodologies used in empirical sources and research reports. Because we wanted an overall picture of the methodological landscape with respect to FL, we categorized sources into broadly qualitative, quantitative, and “not applicable” categories.

Phase III involved qualitative analysis of analytic template data representing sources’ key ideas, implications, and future directions. Analysis of these categories allowed us to understand themes that may be represented across the literature, as well as what might be limited or missing. We compiled Word documents (one for each category) that

included all data (i.e., direct quotes) from the corresponding sections of the templates. Perry and Shaw individually read through the compiled “key ideas” document to develop a tentative list of potential codes, then collaboratively developed a refined master list. We individually coded using the Microsoft Word comment feature, then combined our coded documents and noted areas of overlap and differences in coding. To achieve conceptual relevance, Perry and Shaw compared every fifth and tenth page of the document; Perry started on page 5 (e.g., p. 5, 15, 25, etc.), and Shaw began on page 10 (e.g. p. 10, 20, 30, etc.). We examined the codes each researcher used, as well as overlapping coded passages (regardless of which code was used), passages that had the same coding, and places where major discrepancies occurred that needed further discussion. Because this analytic phase was qualitatively focused on themes and not on the number of instances of each code, we focused our efforts on ensuring that the applied codes and their respective passages were conceptually congruent. Coding differences typically indicated instances in which codes were not clearly defined, or needed to be merged together or split into two (or more) individual codes; we resolved these differences through discussion. This initial coding process resulted in 62 individual codes, which we grouped into 11 families of conceptually-related codes, such as “definition/construct of FL,” “cognitive skills & strategies,” and “sociocultural/contextual aspects of literacy”.

Following the procedure established by Perry and Shaw, Ivanyuk analyzed the implications for research, theory, practice, or policy that authors presented in their source. Tham analyzed sources’ stated future directions, ways in which authors raised questions, or suggested extensions to address

remaining knowledge gaps. Each researcher developed a tentative code list, then met with either Perry or Shaw to finalize a master code list and review the analysis. The code families developed in this phase formed the basis of the themes we present in this analysis.

Prominent Themes in FL Scholarship

Our analysis identified several common themes that characterized much of the current scholarship in FL. Using data from national and international assessments, many sources provided overviews of the state of adult literacy in the U.S., including reporting literacy rates and discussing the impacts of low literacy on society. Some sources discussed the cognitive skills required for FL and/or developed profiles of readers, while others focused on the sociocultural contexts in which adults practice literacy. Finally, a relatively newer focus was on the role of texts in FL. To contextualize these themes, however, we begin by reviewing the types of literature that have been recently published, the methodologies and theoretical frameworks that scholars use, and the keywords they use to describe the construct of FL.

Overview of Sources

The balance of types of literature included in our analysis reflects important trends in the ways FL has been investigated recently. The 90 sources in our sample (see Appendix A) comprised 41 empirical studies, four reviews, and 31 theoretical or position pieces². The 15 “other” sources represented (a) overviews of a particular topic, such as workplace literacy, (b) editorial introductions to special journal issues, (c) essays, or (d) governmental reports of research. Also included in this category was White’s (2011b) book, which compiled several related

² One source, Hauteceur (2000), was categorized twice as both a theoretical piece and as an “other” introduction.

empirical studies. Less than half of the included sources were empirical research studies, indicating that FL is perhaps more “written-about” than researched. This trend was even more pronounced in workplace literacy and family literacy; half of the family literacy sources and only two of the 14 workplace literacy sources represented empirical research. Slightly over half of health literacy sources were empirical studies.

Research methodologies and theoretical frameworks also indicate how FL is currently conceptualized. Of the 41 empirical research sources, 27 used quantitative research designs, compared with 15 qualitative designs (one source was counted in both categories). The preference for quantitative research designs was also noted in studies of FL in the workplace (4 of 6 studies), health care (9 of 11 studies), and in assessment (17 of 18 studies). In contrast, three of the four studies in adult-related family literacy used qualitative research designs. Quantitative designs typically investigated cognitive skills and components of literacy, provided comparative data about literacy abilities, and described effectiveness of interventions. Qualitative designs, in contrast, offered insights into social phenomena that could not be investigated numerically, such as practices in context and participant perspectives.

Less than a third of our sources (27 of 90) used the term *FL*, and instead used a variety of keywords such as *functional illiteracy*, *adult basic skills*, and various iterations of the word *literacy*, such as *adult literacy*, *document literacy*, *consumer literacy*, or *computer literacy* (see Appendix A). Four areas of application were common among sources: *workplace literacy*, *health literacy*, *family literacy*, and *assessment*. The construct of FL has had a lengthy, strong connection to the workplace (e.g., Castleton, 2002; Jurmo, 2004). 14 sources addressed workplace literacy in addition to other FL topics; seven of these were

solely focused upon workplace literacy. Scholarly interest in health literacy is relatively newer; 20 sources addressed health literacy, ten of which discussed health literacy alone, and two of the four included reviews were on this topic. Although family literacy involves literacy activities that occur within the home and family (presumably including adults), our search resulted in only eight sources that included discussion of adult FL within families. Assessment was addressed by 26 sources – the largest group – although only one of these sources was solely dedicated to assessment.

Adult FL in the Population

Data from the 2003 NAAL indicated that 90 million adults in the U.S. have low levels of literacy, scoring at the levels of *basic*, *below basic*, or *nonliterate in English* (Kutner et al, 2007). Approximately 30 million adults (14%) scored at the “below basic” level of prose literacy, while 12% (27 million) and 22% (46 million) were at the same levels of document and quantitative literacy, respectively. Additionally, 29% of adults scored at only the basic level in prose literacy, while 22% and 33% of adults scored at basic levels of document and quantitative literacy. An astonishing 5% of the adult population in the U.S. was deemed entirely nonliterate in English (Kutner et al, 2007). Lower levels of literacy were more likely to occur among racial and ethnic minorities, adults with lower levels of educational attainment, English learners and other immigrants, adults with disabilities, the elderly, and those from lower socioeconomic levels (Baker et al, 2002; Kutner et al, 2007; Parker & Schwartzberg, 2001).

Low literacy and illiteracy may have significant social consequences. Studies have shown that adults with lower levels of literacy are more likely to be un- or under-employed, to earn lower salaries when they are employed, or to require public assistance (Kutner et al, 2007). They also are less likely to read

with their children, engage in other language and literacy development activities, have reading materials available in their homes, or help their children with homework (Kutner et al, 2007). Individuals with low levels of literacy have difficulty in following directions for prescriptions or medical treatment (Mikulecky et al., 2009; Parker & Schwartzberg, 2001; Witte, 2010), are less likely to be vaccinated (Bennett, Chen, Soroui, & White, 2009), more likely to be hospitalized (Baker et al, 2002), and have health care costs that are four times the costs for the general population (Witte, 2010).

Perspectives of Adults with Low Literacy

Data from national assessments represent others' assessment of adults' literate abilities. Adults' own self-assessment receives far less attention in the FL literature than do formal assessments. Although self-reporting is problematic (Wagner, 2008), self-perceptions can play an important role in understanding the full phenomenon of FL (Guadalupe & Cardoso, 2011). Yet, adults' self-assessments of their literacy abilities are often discounted as failure to recognize a problem or denial of reality (Hautecoeur, 2000). In the IALS, according to Hamilton and Barton (2000),

People's own judgments of their everyday literacy competence...were much more positive than the test scores would suggest they should be. The authors of the 1995 OECD report favor an interpretation of this that asserts that people are deluded about their own abilities. The interpretation of this [favored] by the authors of the 1995 OECD report is that people are deluded about their

own abilities, but an alternative view is that the test is measuring something other than everyday literacy practices (p. 384).

Valdivielso Gomez's (2000) critique seems most relevant here:

If these people say their reading and writing skills are adequate for their daily needs and that with their level of knowledge they are able to carry out their daily lives, then why are the research directors determined to show the contrary to be the case? (p. 426)

Indeed, with the exception of a few qualitative, socioculturally-oriented sources, few researchers included the voices or perspectives of adults who are deemed to be low literate, either through self-assessment or by others. For example, Castleton (2002) noted that discussions of workplace literacy "are rarely accompanied by...what workers themselves perceive as their 'need'" (Castleton, 2002, p. 556). These sources suggest that FL scholarship may be largely overlooking adults' perspectives.

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Reader Profiles, Contexts, and Texts

Three themes categorized much of what the field discussed with respect to FL: (a) the skills required for FL, (b) the role of context, and (c) the role of texts in FL.

FL skills. Various scholars developed specific profiles, typically grounded in the National Reading Panel's (2000) literacy framework, for adult readers related to FL. For example, Binder and Lee (2012) identified four types of readers: those who were

good at both decoding and comprehension, those who were poor at both, “resilient readers” with poor decoding but average comprehension, and readers with poor comprehension but good decoding (p. 86). Mellard, Woods, and Fall (2011) identified four similar categories based on speed and accuracy: Most Fluent Readers (fast and accurate), Context Readers (speedy but inaccurate), Print-bound Readers (slow but accurate), and Dysfluent Readers (slow and inaccurate). Although Context Readers had low-literate status, Dysfluent Readers were most likely to be classified at the lowest levels of literacy. White (2011b) warned that “defining ‘adequate proficiency’, however, is not a straightforward matter. Each individual possesses a unique profile of skills...and the minimal skill profile required for success varies across tasks” (p. 59). Other scholars questioned the appropriateness of these skills profiles, because they are based, in large part, on research with children. Research conducted by both Greenberg (2013) and Mellard, Fall, and Woods (2010) found that while some of the underlying skills were the same for adults and children, adults’ skills also differed in important ways.

Perhaps the most comprehensive list of components or competencies came from White’s extensive work in researching FL in adults (White 2011a, 2011b, 2012; White & Dillow, 2005). White’s resulting theory of FL integrated the skills required by the task, the text, and the respondent: “Respondent skills are those that correspond with the cognitive and linguistic effort demanded by a literacy task (i.e., task demands), which are, in turn, determined by text features” (p. 226). These skills included (a) basic (word-level) reading skills (decoding and recognizing words); (b) language (sentence- and discourse-level) comprehension skills; (c) text-search skills; (d) computation identification skills; (e) computation performance skills; (f) inferential skills; and (g) application skills (White, 2011b).

The role of context. Other sources, particularly those that considered literacy in applied contexts, critiqued the reduction of FL “to a simple nuts-and-bolts matter, to a fairly basic skill based on mastery of technique” (Selber, 2004, p. 472). For example, despite connections between discourses about the relationship between FL and the workplace, Castleton (2002) observed that these discussions “are rarely accompanied by any critical analysis of what constitutes ‘basic skills’ in contemporary workplaces” (p. 556). Ozanne, Adkins, and Sandlin (2005) similarly questioned “the notion of literacy as a set of skills that can be readily and seamlessly transferred from one context to another” (p. 265), while Falk (2001) argued that basic skills are not sufficient for literacy: “What is needed are the more deeply ingrained enabling skills appropriate to the range of work, community, and civic situations” (p. 569). Others described “contextualized skills” (e.g., Bernardo, 2000; Falk, 2001), while Kirsch (2001), Liddicoat (2004), Ntiri (2009), and Ozanne, Adkins, and Sandlin (2005) defined FL as a complex set of practices grounded in context rather than a set of specific, isolated skills.

In fact, the socio-cultural context of literacy use was the most common code in our qualitative analysis, occurring across a variety of topic areas/domains (e.g., health, consumer behavior, the workplace). Berkman, Davis, and McCormack (2010) argued, for example, that health literacy cannot be reduced to basic literacy skills because it is also dependent upon contextualized system factors including communication skills, culture, the overall health care system, and other aspects of context. Based upon their research in consumer literacy, Ozanne, Adkins, and Sandlin (2005) similarly showed how “consumer literacy is a set of social practices...embedded in specific social contexts where a range of skills, other than decontextualized decoding, become important” (p. 265). Hamilton and Barton (2000) also emphasized the role of

context in FL assessment, noting that “the uses of texts are not obvious: one cannot read off from a text, nor from the intentions of the text-producers, how a text is actually used” (p. 383).

The role of texts. Texts themselves play an important role in adult FL, an area of focus that seems to be relatively new with respect to FL. Some sources documented the types of texts people used in their everyday lives (e.g., Smith, 2000; Lynch, 2009; Perry, 2009), while others examined more specific contexts of literacy use, such as consumer literacy (Viswanathan, Rosa, & Harris, 2005). White’s (201b) theory emphasized textual factors in FL, and other sources (e.g., Cohen & Snowden, 2008; Perry, 2009; White, 2012) also suggested the importance of adults’ familiarity with texts and their use. Some sources (e.g., Cohen & Snowden, 2008; Perry, 2009) considered the text as a whole and examined larger text structures, while White (201b) also examined microstructures (i.e., word level). Adults’ overall familiarity with a text or genre represented an important aspect of FL. Cohen and Snowden (2008) found a strong relationship between adults’ familiarity with a document and their ability to effectively use that document in a standardized assessment, accounting for approximately 70% of the variance in assessment scores. In the Adult Literacy Supplemental Assessment (ALSA) of the NAAL, adults who were familiar with the consumer products they were asked to identify performed better than those who were unfamiliar with them (Baer, Kutner, Sabatini, & White, 2009). In ethnographic research, Perry (2009) found that Sudanese refugee adults’ “prior experience with genres and practices clearly mattered” (p. 268) in determining the kinds of help they needed with texts.

Individual features associated with genres or text types also matter in the ability to engage in FL tasks. For example, Cohen and Snowden (2008) speculated

that because documents tend to use similar elements or features in a structured format, document familiarity may enable readers to develop mental models of certain kinds of documents. Perry (2009) similarly concluded that some knowledge needed to effectively engage in literacy practices is specific to genre, such as the purpose a given genre serves, which features define that genre, and the function of those individual features. In their work on consumer literacy, Viswanathan, Rosa, and Harris (2005) also found that certain textual features associated with product labels and store signs could support or hinder consumer behavior. Taking a more micro perspective, White’s (2011a, 2011b, 2012) work examined cognitive aspects of 34 specific text features. Text features are aspects of a text ranging from the level of individual words to the level of genre structure that can “facilitate or hinder completion of the task by influencing its cognitive and linguistic demands” (White, 2011a, p. 225). White considered features to be facilitators if they supported comprehension and aided in the completion of literacy tasks; inhibitors were the opposite. White was careful to note, however, that there is nothing inherent in particular features that renders them as facilitators or inhibitors; rather, text features interact with the cognitive and linguistic demands of both the task itself (i.e., what a reader is expected to do with a particular text) and with the skills of the reader. Taken together, the findings of these studies suggest that an adult’s familiarity with a type of text (i.e., genre or text type, such as document), with that text’s particular features/elements, and with the structure of that text can contribute to an adult’s ability to read/use those texts in the world.

FL Assessment

Adults are often determined to be functionally literate or illiterate based on standardized assessment scores or levels; level 3 in the IALS is the

minimum acceptable level of literacy (Boudard & Jones, 2003), while level 2 is designated as “basic” literacy on the NAAL (Kutner et al, 2007). Assessments typically focus upon three domains of FL: prose, document, and quantitative literacy (PDQ) (e.g., Baer et al, 2009; Darcovich, 2000; Kirsch, 2001; Kutner et al, 2007; White, 2011b). Darcovich (2000) explained that these domains were selected because they are most common in real-life literacy use. White (2011b), however, argued that the PDQ model excludes other domains, “such as computer literacy or writing, that might capture other aspects of literacy that are highly relevant to modern life” (p. 169). The text-task-respondent theory of FL, White suggested, might open the definition of literacy beyond the PDQ model. Sources critiquing these assessments and leveling systems emphasized the fundamental importance of context in determining who is, and is not, functionally literate (e.g., Hamilton & Barton, 2000; Ntiri, 2009; Ozanne, Adkins, & Sandlin, 2005; Valdivielso Gomez, 2000). One major critique was that assessed levels may not accurately represent the lived realities of adults. Boudard and Jones (2003) noted, for example, that “little is known about the levels of literacy proficiency needed to function in different contexts or perform different tasks” (p. 194). Hamilton and Barton (2000) were even more blunt:

The tests are designed to ensure a broad spread of responses across an arbitrarily fixed set of five levels. This involves allocating a significant proportion of people to each of the levels, including the lowest; this may bear no relation to the distribution of everyday tasks people perform in their lives. We reiterate: the levels have been invented statistically; they are not based on people's actual lived practices. (p. 384)

These critiques suggest that there may be a disconnect between literacy scholars who develop FL assessments and the adults those assessments are designed to serve.

Other scholars argued that little consistency exists across assessments. In health literacy, Colbert, Sereika, and Erlen (2012) noted that the construct of “higher” and “lower” levels varied significantly across studies; perhaps this is due to a lack of comparable measures of literacy proficiency and to a lack of a consistent framework for assessing literacy needs (Boudard & Jones, 2003).

Finally, sources critiqued the uses of leveling systems. White and Dillow (2005) explained that the 1992 NALS data were never intended to identify level of skills adults need to function in society, but that the report’s findings were used in exactly those ways. Even when specific claims are not made about which levels represent a functional level of literacy, “the social significance of being included in the lowest standing [level] is the same as being considered illiterate,” argued Valdivielso Gomez (2000, p. 426).

Implicit Assumptions and Glaring Omissions in FL Scholarship

Our thematic analysis identified several assumptions that appeared to underpin much of the work in this field, and which also appeared to go unquestioned, as well as topics that were surprisingly absent from this body of scholarship. Prominent assumptions included the perceived deficits in adults characterized as functionally literate, low-literate, or illiterate, as well as those made about English learners. Surprising omissions included the roles of writing and community in FL.

Deficit Assumptions

Perhaps related to the ways in which FL is conceptualized and assessed, deficit assumptions undergirded much scholarly discussion about FL. Coupled with NAAL data suggesting that 40% or more of the U.S. population have basic (or lower!) levels of literacy, the consequences outlined in many sources imply that a large chunk of the U.S. adult population has difficulty performing the necessary functions of their daily lives, due directly to deficits in literacy. Other sources counter that the existing literature often stereotypes low-literate adults (Quigley, 2001), and that the inability to read or write is conflated with the inability to function in many other aspects of life (St. Clair & Sandlin, 2004). Sources noted that low-literate adults are assumed to be poor customers (Cuban, 2006), unable to care for themselves (Mikulecky et al., 2009; Parker & Schwartzberg, 2001; Witte, 2010), fail to cope with society (Liddicoat, 2004), or even have an oppositional identity (Wallendorf, 2001). Although some sources only applied assumptions of deficiency to literacy skills and abilities – for example, White and Dillow (2005) reported that data from the NAAL assessment “are useful for exploring the critical question of how literacy skills and deficits relate to adults’ literacy performance” (p. 23) – others appeared to assume that these deficiencies have more universal implications and that reading skills imply an inability to function in society (e.g., Baker et al, 2002; Foulk, Carroll, & Wood, 2001).

Deficit assumptions also occurred in applied contexts such as the workplace (Rose, 2003), health literacy (Adkins & Corus, 2009; Witte, 2010), and family literacy (Amstutz & Sheared, 2000; Hannon, 2000; St. Clair & Sandlin, 2004). Vocational and workplace literacy programs rely on deficit perspectives, “tending toward the simplest and strictly functional of tasks” (Rose, 2003, p. 128). Medical providers view low levels of literacy as a

handicap (Adkins & Corus, 2009), even associating limited health literacy with “deficits in health knowledge in support of decision-making” (Wolf et al, 2009, p. S278). In family literacy, St. Clair and Sandlin (2004) pointed out the implicit belief that “irrespective of any other behavior or values, the parent who is not demonstrating literate acts cannot be a good parent” (p. 55); such assumptions are particularly directed at urban parents (Amstutz & Sheared, 2000).

Countering deficit assumptions were sources that called for conceptualizing low-literate adults as otherwise competent, functional, and possessing skills that allow them to effectively navigate a literate environment – or at least viewing these adults as more complex and nuanced than typically portrayed. Manzo (2003) critiqued the 1992 NALS report, which “hardly mentioned that some low-scoring, though apparently resilient, respondents held management jobs, earned good wages, and were living otherwise fulfilling lives” (p. 655). For example, ethnographic research into the print literacy activities of parents in Spanish-speaking migrant families (Lynch, 2009) and Sudanese refugee families (Perry, 2009) found that parents typically characterized as low-literate engaged with a wide variety of texts on a regular basis, included their children in literate activities, and used a variety of strategies, including literacy brokering conducted by their children (Perry, 2009) in order to access and use texts that otherwise might have been problematic.

Scholarship from other applied contexts illustrated the compensation strategies that low-literate adults used to navigate health care (e.g., Adkins & Corus, 2009; Cuban, 2006), the workplace (e.g., Rose, 2003), family (Lynch, 2009; Perry, 2009) and consumer settings (Ozanne, Adkins, & Sandlin, 2005; Viswanathan, Rosa, & Harris, 2005; Wallendorf, 2001). Patients relied on a variety of strategies to

deal with health-related texts, such as asking others to read and fill in forms for them – strategies that were not captured by scores on health literacy assessments (Cuban, 2006). Ozanne, Adkins, and Sandlin (2005) concluded that “low literacy does not necessarily translate into consumer incompetence; rather, a range of skills can be leveraged to meet needs competently” (p. 265), although other research found that the strategies used by literate and illiterate (or low-literate) consumers differed in effectiveness (Viswanathan, Rosa, & Harris, 2005; Wallendorf, 2001). Deficit assumptions may have limited scholars’ understanding of the cognitive and linguistic processes at play in navigating workplace literacies (Rose, 2003).

English Learners

Because of the difficulty of disentangling language learning and literacy learning in English learners, our search process excluded English learners unless a source specifically discussed issues of low-literacy or illiteracy. It is important to note that our specific search parameters and inclusion criteria eliminated a large body of research examining literacy and literacy education for English learners, including adults. As a result, it is outside the scope of this review to provide a thorough discussion of FL in that population. Nevertheless, we feel it is important to highlight one clear manifestation of the deficit perspectives in the literature that did meet our criteria: the conflation of the constructs of “English learner” and “non-literate.” Liddicoat (2004) noted that this conflation is common: “In some countries the equation between literacy and the official language is so tightly drawn that literacy is defined for policy purposes as literacy in the official language only” (p. 12). In fact, this understanding is reflected in the U.S.’s National Literacy Act. Purcell-Gates et al (2002) also reported this conflation among adult educators in their research:

A fascinating phenomenon emerged over the course of the study that can perhaps be described as a confusion, or blindness, which seems to confound ESOL status and literate status in the minds of many, particularly teachers. By this we mean that many teachers, when asked if certain students were “nonliterate,” “somewhat literate,” or “highly literate,” would answer for ESOL students as if the question were being asked about being literate in English. (p. 90)

This conflation was particularly prevalent in sources that discussed U.S. literacy assessments (i.e., Kutner et al, 2007; Mohadjer et al, 2009; White & Dillow, 2005). White and Dillow (2005) and Kutner et al (2007) explained that two types of people comprised the category of *non-literate in English*: a) those who can’t *speak* English, and b) those who could speak English but who were not able to take the main assessment because they did not have sufficient literacy skills.

Other sources, especially those representing ethnographic case studies (e.g., Lynch, 2009; Perry, 2009), critiqued the perception that immigrants and English learners have low literacy. Viswanathan, Rosa, and Harris’s (2005) research in consumer literacy found that English learners were more like poor, literate consumers than like low-literate or illiterate consumers. White (2012) concluded that certain text features, such as pronoun referents and discourse markers, may be more difficult for English learners. In a study of Arabic-literate Sudanese refugees, Perry (2009) similarly found that participants were unfamiliar with textual genres and cultural assumptions that might be embedded in English texts. Thus, English learners may struggle with literacy in English, although this is not the same thing as being illiterate or low-literate. Based upon their review of adult literacy research,

Mikulecky et al (2009) called for rethinking deficit perspectives with respect to English learners.

Writing

One dimension of literacy was glaringly omitted from most FL literature – writing. Two of the four official definitions of literacy (National Literacy Act, 1991; UNESCO, 1978) specifically mentioned writing, and it was implied in the other two definitions.

Writing, however, was almost entirely overlooked in the literature. Hamilton and Barton (2000) observed that IALS' concept of literacy “deals primarily with reading” (p. 379), while Liddicoat (2004) critiqued the OECD definition of literacy as being

Very much based on a view of print literacy with the reading of written information being privileged as the central literacy skill. While the OECD definitions include a dimension of use for information, it is not clear from the discussion of the domains that this use involves much writing, beyond filling in forms. (p. 2)

In line with these observations, the vast majority of sources in our analysis discussed FL as a matter of reading, and when writing was included at all in discussions of FL, it appeared to be an afterthought. A few sources did note the importance of writing (e.g., Hull & Schultz, 2001; Rose, 2003; Schneider, 2007). Rose (2003), for example, discussed the role of writing in modern workplaces, including creating labels, lists, and records or reports. In describing FL instruction in the Sea Island citizenship schools, Schneider (2007) noted that “instruction dealt with all facets of literacy, from instruction in holding a pencil and the signing of a cursive signature, to the

transcription of personal narratives” (p. 155). Nevertheless, the current construct of FL may be more accurately described as *functional reading*.

Writing's glaring absence from the concept of FL sends a message that writing is not nearly as important a functional skill for adults as reading – functionally literate adults are expected to be consumers of texts, but not to be producers of them. From this viewpoint, conceptions of FL have not come very far in the past several hundred years, when being able to sign one's name was all the writing ability deemed necessary.

“Writing's glaring absence from the concept of FL sends a message that writing is not nearly as important a functional skill for adults as reading—functionally literate adults are expected to be consumers of texts, but not be producers of them.”

Community and Literacy

Whether literacy was understood as an individual or as a social and communal phenomenon also represented an important limitation. Community is connected with literacy in international definitions; the OECD includes “in the community” as one context of literacy use, while UNESCO refers to effective functioning “of his group and the community” and “the

community's development” as indicators of FL. U.S. definitions, and as a result, most of the sources in our analysis, largely treated literacy as an individual phenomenon; both the National Literacy Act (1991) and the NALS/NAAL definitions refer to “one's goals” and “one's knowledge and potential.” The emphasis on individual aspects of literacy likely reflects both cultural emphases on individualism, as well as the dominant cognitive theoretical orientation with its emphasis on skills that exist in the mind of the individual.

A few sources (Amstutz & Sheared, 2000; Bernardo, 2000; Ntiri, 2009; Schneider, 2007; Valdivielso, 2006; Viswanathan, Rosa, & Harris, 2005) emphasized community development, empowerment, and citizenship as important aspects of literacy. Most sources, however, emphasized other aspects, such as national economic development. Bernardo (2000) argued that while literacy may not always be integral to community functioning, and that becoming literate (or more literate) may not necessarily open opportunities for development, understanding the ways in which community practices support literacy processes is nevertheless important.

Given some official definitions along with all the applied contexts in which FL occurs, we expected citizenship to represent a larger theme than it did, especially among more socioculturally- or critically-oriented sources. Instead, the current literature focused more upon FL for the workplace and the marketplace. Only Schneider's (2007) historic analysis of the Sea Island Citizenship schools emphasized the important role of FL in contributing to the development of an active citizenry, although Askov (2000) reported data showing a connection between civic participation and levels of literacy. Despite these inclusions, our analysis found little evidence that communal aspects of literacy are valued or taken up in research, policy, or assessment. The lack of community emphasis is also reflected in frequent discussions of workforce, national, and economic development – and the almost complete absence of discussions related to family and community development or citizenship as worthy goals for FL policy, instruction, or assessment.

Conclusion: What is Needed in Future FL Scholarship

While the 90 sources that met criteria for our analysis felt like a large body of literature to

synthesize, these sources, spread across 15 years, represent an average of six publications per year – a tiny drop in the literacy research bucket! Given the themes we identified across these sources, as well as what appeared to be problematic or missing, we conclude that additional scholarship is still sorely needed with respect to FL. The needed scholarship represents two areas: (a) a better theoretical and conceptual understanding of adult FL, and (b) research that will enhance this understanding.

The cognitive theories and quantitative designs that dominate the current body of literature lend themselves to investigations of skills and components of literacy, comparative data about literacy abilities, and effectiveness of interventions. Sociocultural and critical perspectives have the potential to provide important insights into social phenomena that cannot be investigated numerically, such as offering the voices and perspectives of various stakeholders, including those characterized as low-literate or functionally illiterate. Little empirical research reflects these latter stances, however, and research focused on actual humans in real-world contexts is sorely needed. Moreover, with the exception of White's (2011b) task-text-respondent model of FL, current theoretical models of adult FL are based predominantly on the National Reading Panel's (2000) framework or the Rand Report (Rand Reading Study Group & Snow, 2002), as well as upon research with children. These models do not satisfy the needs of research, policy, and practice with respect to adults with low literacy (Greenberg, 2013; Mellard, Fall, & Woods, 2010). Whether FL is conceptualized as a cognitive skill or a sociocultural practice, the field agrees that it is a construct that is applied in real-life contexts. Some of these contexts, however, are better understood with respect to FL than others. For example, workplace literacy has had a long connection to FL, and health literacy has emerged more recently as an important aspect of adult FL. Other areas, however,

are ripe for exploration. With a few exceptions (Compton-Lilly, 2009; Lynch, 2009; Perry, 2009; Rogers, 2004), adult FL within family contexts has taken a backseat to children’s literacy development. Similarly, while “community” is included in international definitions of FL, it is not mentioned in U.S. definitions and, perhaps as a result, is largely absent from the FL literature. There is, therefore, great need to better understand the skills and practices associated with FL in these, and other, applied contexts.

We also observed that scholarly and policy treatments of FL emphasize functional reading to the near exclusion of writing. Knowledge of functional writing should be brought in alignment with that of functional reading to address this major gap. Theories related to writing also must be included with future research on FL to understand functional writing, including (a) the cognitive skills and strategies that are required, (b) how sociocultural contexts shape writing practices (e.g., Which practices are necessary in a given context?; How do individuals’ purposes shape writing practices?), (c) writing in contexts such as the workplace, healthcare, and the family, and (d), how to meaningfully assess functional writing.

The field’s conceptual and theoretical understanding will also be enhanced through additional scholarship that addresses adults with low literacy and others deemed to have FL needs. Although our review specifically excluded the large body of literature focused upon literacy and English learners, the number of included sources that did discuss English learners suggests that this is an area of importance for the field. Replicating our review with those sources would help to provide a much fuller picture of what is known, what is missing, and what is problematic with respect to adult FL in the U.S., as well as to identify areas of similarity and difference in FL between native speakers and

English learners. The conflation of adult English learners with those of low-literate status flags another clear area of need for deeper, more nuanced understanding of the literacy realities facing these learners. Some English learners are highly literate in other languages, while some are not literate in any language. Others may be literate in some languages but still struggle with English literacy. Therefore, research that specifically seeks to understand the similarities and differences of the literacy needs of English learners in comparison with low-literate native speakers is necessary.

Also strikingly absent from the literature we analyzed were the voices of adults who struggle with literacy or are deemed to be “only” functionally literate (or below). Additionally, the literature discussing adults’ self-perceptions in comparison to the results of formal assessments suggests that there may be discrepancies in how adults perceive themselves and how scholars and policymakers view them. Exploring FL from the perspective of those who use or need it has the possibility to (a) provide a far more comprehensive conception of both the nature of FL and its human factors, (b) counter the dichotomous categories of literate/illiterate by recognizing the range of literacy practices that individuals may (or may not) need in different cultural contexts, and (c) lessen deficit stances by offering more nuanced understandings of the knowledge, skills, and abilities that supposedly low-literate or functionally illiterate adults bring to literate contexts and practices.

Unlike other areas, FL assessment has been well-researched. Several sources recommended that future research should consider and validate the type of measurements used, include larger sample sizes, and investigate a variety of sample groups, such as English learners and older adults (Binder & Lee, 2012; Chisolm & Buchanan, 2007; Colbert, Sereika & Erlen, 2013; Mellard, Woods & Desa, 2012;

Viswanathan, Rosa, & Harris, 2005). Because the majority of assessment-related studies represented quantitative methodologies with an emphasis on cognitive skills, we recommend that future scholarship include more qualitative designs, sociocultural perspectives on literacy as a set of practices, and the perspectives of adult participants with respect to FL assessment. This broadened perspective might afford the development of ways of assessing FL that account for the full range of skills, practices, and contexts in which adults use literacy in their lives.

Finally, the scope of our review specifically excluded scholarship and literature related to FL instruction. Replicating our review process with a specific focus on adult FL instruction would be an important first step in understanding a) how FL is conceptualized by or presented to practitioners, and b) which conceptualizations, theoretical frameworks, perspectives, and themes are taken up in instructional practice, and how that occurs. For example, it would be interesting to see whether (or

how) deficit perspectives are reflected in that literature, as well as how sources focused on instruction treat issues related to writing, community, and citizenship. Are the same trends, absences, and issues reflected in the instructional literature, or are different ones present?

Our analysis has explicitly addressed the need to understand what is known and what is missing in contemporary FL scholarship. The synthesis illustrates current conceptualizations and applications of FL in literacy and related fields in the U.S. and names inconsistencies and gaps that should be addressed. We argue that this awareness creates opportunities for FL researchers to make concerted efforts to enhance the quality of their work in several ways. Various complimentary research paradigms are needed to (a) inform policy-makers about literacy's role in society, (b) to meet people's own demands for literacy, and (c) to design effective adult education programs (Hamilton & Barton, 2000).

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Table 1

Four National and International Official Definitions of Literacy/Functional Literacy

Sources	Definitions
National Adult Literacy Survey (NALS; 1992); National Assessment of Adult Literacy (NAAL, 2003)	“Literacy is using printed and written information to function in society, to achieve one’s goals, and to develop one’s knowledge and potential.”
National Literacy Act (1991)	Literacy is “an individual’s ability to read, write, and speak in English, and compute and solve problems at levels of proficiency necessary to function on the job and in society, to achieve one’s goals, and develop one’s knowledge and potential.”
Organization for Economic Co-operation and Development (OECD, 2000); Stats Canada	“The ability to understand and employ printed information in daily activities, at home, at work and in the community—to achieve one’s goals, and to develop one’s knowledge and potential.”
UNESCO (1978)	“A person is functionally literate who can engage in all those activities in which literacy is required for effective functioning of his group and community and also for enabling him to continue to use reading, writing and calculation for his own and the community’s development.”

Appendix A

Key Words and Text Type for Each Source

Source	Key Words Addressed							Text Type				
	Functional Literacy	Functional Illiteracy	Adult Basic Skills	Health literacy	Family literacy	Workplace Literacy	Assessment	Other	Empirical	Review	Theoretical or Position Piece	Other
Adkins & Corus (2009)	X			X					X			
Amstutz & Sheared (2000)			X		X						X	
Askov 2000						X			X			
Baer et al. (2009)	X		X				X					Report
Baker et al. (2002)	X	X		X			X		X			
Bates & Holton (2004)						X	X		X			
Bauske et al. (2013)	X						X		X			
Bennett et al. (2009)				X			X		X			
Benson (2010)								Literacy, illiteracy	X			
Berkman, Davis, & McCormack (2010)	X			X				Literacy			X	
Bernardo (2000)	X	X									X	

Binder et al (2011)			X			X			X		
Binder & Lee (2012)			X						X		
Boudard & Jones (2003)	X										X
Castleton (2002)						X					X
Chesser et al. (2014)				X			X		X		
Chisholm & Buchanan (2007)				X			X		X		
Cohen & Snowden (2008)								Document literacy	X		
Colbert, Sereika, & Erlen (2012)				X					X		
Collin & Apple (2007)						X		School-based literacy			X
Compton-Lilly (2009)			X						X		
Craig (2001)						X			X		
Cuban (2006)				X							X
Darcovich (2000)	X						X				X
Diehl (2011)				X							X
Druine & Wildemeersch (2000)			X								X
Falk (2001)						X					X

Fisher & Martin (2000)						X					X	
Foulk, Carroll, & Wood (2001)	X	X		X							X	
Golbeck, Ahlers-Schmidt, & Pascal (2005)			X	X			X		X			
Golbeck et al. (2010)				X			X		X			
Greenberget al. (2009)			X				X		X			
Greenberg et al. (2010)			X				X		X			
Greenberg (2013)			X				X	adult literacy				Overview
Guadalupe & Cardoso (2011)			X				X	adult literacy			X	
Hamilton & Barton (2000)	X		X				X				X	
Hannon (2000)					X						X	
Hautecouer (2000)	X		X				X				X	Introduction
Hepburn (2012)				X						X		
Huber, Shapiro, & Gillaspay (2012)				X							X	

Hull & Schultz (2001)								out-of-school literacy		X		
Jurmo (2004)						X						Summary/overview
Kazemek (2003)			X								X	
Kirsch (2001)	X						X					Assessment framework
Kohler & Sapp (2000)						X			X			
Kutner et al. (2006)				X					X			report
Kutner et al. (2007)	X		X						X			
Laanan & Cox (2006)			X		X						X	
Liddicoat (2004)	X										X	
Lynch (2009)					X				X			
Manzo (2003)	X										X	
Mellard, Patterson, & Prewett (2007)			X						X			
Mellard, Fall, & Woods (2010)			X						X			
Mellard, Woods, & fall (2011)			X				X		X			
Mellard, Woods, & Desa (2012)	X		X						X			

Mikulecky, Smith-Burke, & Beatty (2009)			X						X		
Mohadjer et al (2009)			X				X				Report
Morrow et al (2009)				X					X		
Ntiri (2009)	X	X						adult literacy			X
Olson et al. (2011)								literacy/self-reported literacy	X		
Ozanne, Adkins, & Sandlin (2005)	X							Consumer literacy	X		
Parker & Schwartzberg (2001)				X							Guest editorial
Pennell (2007)	X						X	literacy sponsors/brokers			Essay
Perry (2009)					X			literacy brokering; literacy practices	X		
Prins & Gungor (2011)			X		X				X		
Purcell-Gates et al. (2002)								authentic literacy; literacy practices	X		
Quigley (2001)			X							X	
Robinson (2012)			X		X				X		

Rogers (2004)			X					literate identity	X			
Rose (2003)						X					X	
Rudd (2007)				X					X			
Schneider (2007)	X		X					citizenship education				Essay
Selber (2004)	X							computer literacy				Essay
Sheehan-Holt & Smith (2000)			X						X			
Smith et al. (2000)						X						snippets of perspective
Smith (2000)						X		literacy practices/material	X			
St. Clair & Sandlin (2004)		X			X						X	
Sum (2007)						X	X					Summary of a report
Valdivielso Gomez (2000)							X				X	
Valdivielso (2006)	X	X						Comprehensive literacy			X	
Venezky (2000)								Adult literacy; school literacy			X	
Viswanathan, Rosa, & Harris (2005)		X						Consumer literacy	X			

Wagner (2008)							X				X		
Wallendorf (2001)	X											Essay/ book review	
White & Dillow (2005)	X		X				X					Report	
White (2011a)	X						X		X				
White (2011b)	X		X				X					Book	
White (2012)	X							text features; literacy tasks	X				
Witte (2010)				X						X			
Wolf et al. (2009)				X							X		
TOTALS	27	7	30	20	8	14	26		29	41	4	31	16

Appendix B

Analytic Review Template: Functional Literacy Review of the Literature

Article number Reviewer initials

APA citation:

Institutional affiliation/location of authors:

Department/division/college of authors if known:

Section 1: Complete for all articles/books/reports

1. Summary of the chapter/article/book:
2. This text addresses...(select one or more)
 - Functional literacy
 - Functional illiteracy
 - Adult basic skills
 - Health literacy
 - Workplace literacy
 - Assessment
 - Theory
 - Policy
 - Practice
 - Other:
3. Functional literacy definition if provided (please quote with page #):
 - a. If other definitions of literacy terms are used, please include (quote/page #):
4. What type of text is it?
 - Review article
 - Empirical study
 - Theoretical/position piece
 - Practitioner perspective
 - Other:
5. What methodologies are used? (check one or more)
 - Qualitative/quantitative
 - Case study
 - Ethnography
 - Discourse analysis
 - Not applicable/other:
6. What theoretical frameworks are privileged in this text? (Cite all theorists that are referenced):
7. What does the author cite as future directions?

Section 2: Flow chart for remainder of template is as follows.

If the text you are analyzing is a review article [go to question #8](#)

If the text you are analyzing is an empirical study [go to question #14](#)

If the text you are analyzing is a theoretical/position piece [go to question #23](#)

If the text you are analyzing is a report [go to question #29](#)

If the text you are analyzing is a book [go to question #35](#)

Review article

8. What is the research question? (Quote specifically; also this may be written as a statement of purpose rather than a question):
9. How is data collected and analyzed? (Specifically describe the method):
10. What are the key findings? (Use author's words and include page numbers):
11. What do authors cite as implications of this review? (Include specific quotes and page numbers):
12. What are the noted limitations of the study (Use the author's words and page number):
13. Additional comments:

Empirical Study

14. What is the research question? (Quote specifically; also note this may be written as a statement of purpose rather than a question):
15. Who are the research participants? (Include information about # of participants and other descriptive information such as ethnicity):
16. What is the geographic location of the study?
17. What is the primary data source(s) used in this study? (assessments, interviews, documents, policies)
18. How is the analysis conducted? (Specifically describe the method)
19. What are the key findings? (Use author's words and include page numbers):
20. What do the authors cite as implications of this research? (Include specific quotes and page numbers):
21. What are the noted limitations of the study? (Use the author's words and page number):
22. Additional comments:

Theoretical/position piece

23. What is the purpose of this text? (Include specific quote and page number):
24. What is the rationale for this text?:
25. What are the key ideas the author presents (Include quotes and page numbers)?
26. What are the implications of this text? (Include author's words and page numbers)?
27. What are the noted limitations by the author? (Include quotes and page numbers)?
28. Additional comments:

Report

29. What is the purpose of this report? (Include specific quote and page number):
30. What is the rationale for this report?
31. What are the key ideas or findings of this report? (Include quotes and page numbers):
32. What are the implications of this report? (Include author's words and page numbers):
33. What are the noted limitations by the author? (Include quotes and page numbers):
34. Additional comments:

Book

35. What are the topics addressed in this book? (List topics):
36. What is the length of the book?
37. What is the purpose and perspective of the introduction/editorial statement?
38. Who are the contributors to the book and what is their role/position?
39. To what extent is the dimension of functional literacy addressed? (Check one)
 - Functional literacy is not directly discussed.
 - Functional literacy is alluded to but only in general terms.
 - Functional literacy is treated as a central role to the text and discussed in depth.
40. Additional comments: