Adult Literacy Education:  
*The International Journal of Literacy, Language, and Numeracy*

**MISSION STATEMENT**

The journal’s mission is to publish research on adult basic and secondary education and transitions to college and career programs. It informs practitioners, researchers, policy makers, and funders about best practices in adult literacy, numeracy, and English language education in publicly funded, community and volunteer-based programs in a wide range of contexts. Each issue will consist of research articles focused on a particular theme plus other content of interest to readers (e.g., resource reviews, opinion pieces, and debates and discussions on timely topics of interest to the field).

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Health Insurance Literacy and Low Wage Earners: Why Reading Matters

Iris Feinberg, Georgia State University; Daphne Greenberg, Georgia State University; Elizabeth L. Tighe, Georgia State University; and Michelle Mavreles Ogrodnick, Georgia State University

Abstract

In the United States, worker health care is funded through health insurance plans paid for by employers. Insurance plans are written in complicated language that low wage earners (LWE), who have lower levels of education, may find difficult to understand. We examined the relationship between health insurance literacy (HIL), education, and literacy skills for 75 LWE. Results indicated low to moderate associations between literacies (reading, numeracy, digital), educational attainment and HIL; in a multiple regression analysis, only reading was uniquely significant. LWE with low educational attainment and poor reading skills may need additional support to understand and use their health insurance.

Health literacy is the ability of people to access, understand, and use health information (U.S. Department of Health and Human Services, 2010). Adults with low health literacy have low reading, numeracy, and digital skills which means that they have difficulty reading medication and discharge instructions, following instructions on a prescription bottle, using a table or chart to calculate their insurance deductibles, finding accurate health information on the Internet and/or understanding the concept of risk (America’s Health Literacy: Why We Need Accessible Health Information, 2008; Bartholomae, Russell, Braun, & McCoy, 2016; Feinberg, Greenberg, & Frijters, 2015). Low health literacy is correlated with lower levels of educational attainment, higher use of non-print health information sources (radio or television), and less use of the Internet for accessing health information (Feinberg et al., 2015). Individual health literacy does not exist in a vacuum; rather, it is the interplay between one’s individual skills and the health literacy level of information that is provided that can further complicate how individuals access, understand, and use health information (Berkman, Davis, & McCormack, 2010; Rudd, 2015). Differences in culture, ethnicity, language, and social determinants of health such as socioeconomic status also affect an individual’s health literacy. Beliefs about health and health care, the meanings of words, access to health care, preferences of language and cultural beliefs all have a
direct relationship on how individuals access, understand, and use health information (Nielsen-Bohlman, Panzer, & Kindig, 2004).

Health insurance literacy (HIL), considered a specialized form of health literacy, has not received wide attention. Although more than 63% of Americans under the age of 65 have health insurance coverage through employer-sponsored insurance plans (Kaiser Family Foundation [KFF], n.d.), it is not clear how many people actually understand the health insurance benefits, costs, or terminology that are described in health insurance documents. The Institute of Medicine (IOM) Health Insurance Literacy Roundtable defines HIL as this lack of understanding, which includes finding and evaluating information, selecting the best plan, and using the plan once enrolled (IOM, 2012).

There is no agreed upon national measure for “adequate” HIL. Both the KFF and American Institutes of Research (AIR) developed HIL surveys to assess knowledge of basic health insurance terms and understanding of insurance concepts including calculating co-pays (KFF, n.d.; Paez et al., 2014). In both cases, these surveys indicated that about 60% of U.S. adults correctly answered these knowledge and skills questions (Norton, Hamel & Brodie, 2014; Paez & Mallory, 2014). The KFF quiz also reports average scores of 4.5 (45% correct) for those who never attended high school to 7.2 (72% correct) for those who have a college degree (KFF Health Insurance Quiz, n.d.).

Health insurance documents are contracts between the insurance company and the policyholder, and as such, are written in complex post-graduate level language to explain the legal powers and liabilities of both parties. This makes insurance documents difficult to read if one does not understand the special language of health law. People of all literacy levels have difficulty reading and interpreting this complex and often syntactically challenging text. However, for the 1 in 6 Americans who read at elementary levels and the 1 in 3 who perform math at elementary levels, reading and interpreting post-graduate level documents is even more challenging (Brega et al., 2015; Quincy, 2012; OECD, 2013). As a result, many people struggle with reading and understanding health insurance terminology (co-pay, deductible, annual benefit limit) and health services terminology (screening vs diagnostic tests) (Brega et al., 2015; Hardie, Kyanko, Busch, LoSasso & Levin, 2011; Quincy, 2010). Many also have difficulty with numeracy skills which are necessary to understand health insurance; for example, 88% of U.S. adults cannot calculate their share of costs for health insurance from a table and 49% cannot calculate their out of pocket costs for health services (Greene, Peters, Mertz & Hibbard, 2008; Kunter, Greenberg, Jin, & Paulsen, 2006). Further, most insurance offerings are primarily available online, which necessitates the need for individuals to have access to the Internet and proficiency with digital literacy skills (IOM, 2009; Lupton, 2015). Health insurance information is written in a complex specialized language and can be presented in a complicated and confusing manner, and as the complexity and quantity of information increases, consumer confidence in choosing and using health plans decreases (Quincy, 2010). Adults with low literacy and numeracy skills may have more difficulty than others comprehending this complex text.

Appropriate choice and use of health insurance can positively impact health and financial outcomes (Bartholomae et al., 2016; Quincy, 2012). Individuals with high HIL may not only know how to choose health insurance but may also
understand how to use it to help manage health-related costs (e.g., choosing a health provider that is in-network and has a lower cost to the consumer than one that is out-of-network) (Bartholomae et al., 2016; Hoerl et al. 2017). In addition to the knowledge of how to use health insurance services, those with high HIL may be able to more easily find, understand, evaluate, communicate, and calculate the kind of coverage and services they have (Hoerl et al. 2017; Prins, Monnat, Clymer, & Toso, 2015). Knowledge and skills may increase self-confidence in understanding and using health insurance services (Paez et al., 2014; Quincy, 2010).

Employers are the largest provider of health insurance to U.S. working-age adults; through sponsored insurance plans, employers not only provide insurance coverage, but also try to educate employees to identify and choose appropriate health insurance plans. One group of employees that is particularly at risk for having low HIL and thus difficulty choosing, understanding and using health insurance is low-wage earners (LWE). LWE are characterized by the Bureau of Labor Statistics (BLS) as blue collar, service, personal care, maintenance, health support, or administrative support employees who often have average annual incomes at or below the United States median 2016 salary of $43,992 (BLS, n.d.). They are likely to be nonwhite, have a high school diploma or less, report lower health status and more chronic diseases, have low health-information seeking skills or knowledge, have low digital skills to access online insurance forms and information, and are likely to not be able to meet the literacy demands of health-related programs (IOM, n.d.; Levitt, 2015). LWE are also more likely to exhibit risky health behaviors despite having employer-sponsored health insurance (Harris, Huang, Hannon, & Williams, 2011).

Research Questions

There is a paucity of research about LWE and HIL; much of the research in the last 5 years has been on newly-eligible insured populations (through the Affordable Care Act). This exploratory study seeks to answer the following questions:

1. What is the relationship between literacies (reading, numeracy, digital), educational attainment, and HIL for LWE?
2. Do educational attainment, reading, numeracy, and digital skills account for shared and unique variance in HIL for LWE?

Method

Participants

The participants were 75 individuals who were employed full-time by an urban Southeastern public university in the United States and were not part of a union or collective bargaining unit. All participants were English-speaking individuals from the facilities management, custodial, and security departments. All participants had job titles whose full-time wages met the definition of LWE (below United States median 2016 salary of $43,992). They were recruited at 10 regularly scheduled departmental meetings (supervisors were not present during recruitment) with approximately 150 people total in the meetings. Ninety people expressed an interest to participate, with 75 actually enrolling and completing the assessments.

Materials

Demographic survey. We gathered information on age, gender, race, and educational attainment through an interview. See Appendix for demographic questions.
Reading and math. The Wide Range Aptitude Test-4 (WRAT-4), used in health literacy studies to correlate low literacy skills with low health literacy, (Bass, Wilson & Griffith, 2003; Davis, Kennen, Gazmararian, & Williams, 2005), is normed on children and adults up to age 94 (Wilkinson & Robertson, 2006). These commonly-used reading and math tests for adults (Mullen & Fouty, 2014) are easy to administer and score and provide a significant amount of information in a relatively brief testing time. We used these tests to measure general reading skills which are needed to understand all kinds of documents including health insurance documents. The Word Reading subtest is a list of 33 words ordered from easier to harder. This subtest measures an individual’s ability to read words through letter identification and word recognition. Reliability reported in the technical test manual is .86 (Wilkerson & Robertson, 2006) and a Cronbach’s alpha coefficient of .97 for our sample.

The total of words read correctly indicates the beginning point of the next reading test, Sentence Comprehension, which is a cloze assessment in which participants silently read sentences and provide the missing words. The test manual has criteria for correct responses as well as a sample of incorrect responses. Testers can use the prompt “can you be more specific?” when unsure of a participant response. This test measures an individual’s ability to gain meaning from words and comprehend information contained in sentences. Reliability reported in the technical test manual is .78 (Wilkinson & Robertson, 2006) and a Cronbach’s alpha coefficient of .97 for our sample.

Math Computation subtest is a paper-and-pencil test which measures an individual’s ability to count, identify numbers, solve simple problems, and calculate written math problems. The test consists of two pages of math calculations in no order of difficulty; participants begin at whichever question they choose. Reliability reported in the technical test manual is .94 (Wilkinson & Robertson, 2006) and a Cronbach’s alpha coefficient of .92 for our sample.

Digital literacy. Digital literacy was measured using the Northstar Digital Literacy Test, World Wide Web Module (Northstar Digital Literacy, n.d.). This module contains the skills used to access the Internet, create forms online, and move between web pages. There are 33 questions that are answered on the computer and it takes approximately 15 minutes to complete. Reliability for this module is not reported. Our sample exhibited a Cronbach’s alpha coefficient of .87.

Health insurance literacy. HIL was measured using the KFF Health Insurance Literacy Ten-Question Quiz (KFF, n.d.). This assessment measures how much people know about health insurance terms, concepts, and how to calculate out-of-pocket expenses in different scenarios. The KFF quiz takes approximately 10 minutes to complete. Reliability for this measure is not reported. Our sample exhibited a Cronbach’s alpha coefficient of .42.

Procedures

Testing was conducted by trained research assistants in a private room in the university during a two-hour session. Before taking the assessments, all participants signed informed consent according to the university’s Institutional Review Board. Participants received $20 per hour as remuneration for participating in the study. The demographic survey was read to participants and data were recorded by a trained research assistant into a Qualtrics database on a laptop. Participants were given response cards for race and educational attainment and were asked to select the category of best fit.
The WRAT-4 Word Reading, Sentence Comprehension and Math Computation subtests were administered next; each of the tests was administered individually. Testers were trained according to the general administration guidelines in the WRAT-4 professional manual which includes practicing administration of the test, not sharing test items with participants until formal testing begins and not sharing correct or incorrect responses (Wilkinson & Robertson, 2006). For the Word Reading subtest, all participants were given a word reading list which contained letters and words. The tester had a scoring sheet that mirrored the participant word reading list and followed along as the participant read the words, recording which words were read correctly. Participants started at the first item of the second section; if they did not answer the first five questions on the second part correctly, the tester went back to the first section and administered those items. If the participant answered the first five items in the second part correctly, the participant continued in the second section until he/she hit a ceiling of 10 consecutive incorrect words.

The Sentence Comprehension sub-test followed the Word Reading sub-test. Prior to the actual test, the tester reviewed two sample items with the participant. Then, the participant silently read the sentence from the Sentence Comprehension Card and gave an oral response to fill in the missing word. Each participant continued until he/she hit a ceiling of seven consecutive incorrect answers. The tester used a scoring form to record answers. The next subtest to be administered was Math. The participant was given 15 minutes to complete as many questions as possible on the test form. He/she could not use a calculator but was given a piece of scratch paper to use as needed.

The Digital Literacy Test was given online on a laptop supplied by the researcher.

Testers and participants worked on a sample question together to ensure that the participant understood how questions were asked, what the answer prompts were, and how to use the online system to move between screens and go to the next question.

The testing session concluded with the HIL measure. It included ten questions which were read out loud by a tester; response cards were given to the participant. The tester also read the answers on the response cards to the participants. The participants were given scratch paper and a pencil to perform the calculations required on two of the 10 questions.

**Results**

As indicated in Table 1, participants ranged in age from 18-65, with a mean age of 43.6 (SD = 12.2). Fifty-two percent were female (n = 39). Most of the participants were Black or African-American (89%); the remaining were White (11%). Slightly over half (57%; n = 43) of the participants only had a high school diploma or equivalency degree or less.

All measures were examined for normality assumptions; skew and kurtosis values all fell within the acceptable range (+/- 2). Across all participants and variables, six univariate outliers were identified and adjusted to within two interquartile ranges. Additionally, we examined bivariate scatterplots and did not observe any additional outliers.

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1 At the request of a Reviewer, we performed a sensitivity analysis, in which results were compared with and without adjusting for the six univariate outliers. Results were comparable, and therefore, we chose to report our original results with the six adjusted outliers.
As indicated in Table 2, participants performed below the high school level on all of the WRAT-4 subtests. With regard to digital literacy only one participant scored high enough to receive a certificate of competency (score 14.4) issued by the Northstar Digital Literacy organization (Northstar Digital Literacy, n.d.). The Kaiser Family Foundation reports health literacy average national scores from 4.5 correct items for those who never attended college to 7.2 for those who are college graduates; our participants’ mean raw score was 4.7, which is minimally above the level of those who never attended college (KFF, n.d.).

To answer our first research question, regarding the relation between literacies (reading, numeracy, digital), educational attainment, and HIL for LWE, correlational analyses were run using SPSS Version 24 (IBM Corp, 2016). Correlations computed using pairwise as well as listwise deletion between all measures are presented in Table 3. The correlations between literacies (reading, numeracy, digital), educational attainment, and HIL were low to moderate. All other correlations were moderately to strongly, positively associated ($p < .01$). Of note, is the strikingly high correlation between WRAT Reading and Math ($r = .91$).
To address our second research question regarding the predictive relations of educational attainment, reading, numeracy, and digital skills to HIL for LWE, a multiple regression analysis was conducted using SPSS Version 24 (IBM Corp, 2016). This analysis included four predictors (WRAT Reading, WRAT Math, Digital Literacy, and educational attainment) and HIL was the outcome ($F[4, 65] = 4.748, p = .002$; see Table 4).

Jointly, the four predictors accounted for 22.6% of the variance in HIL. WRAT Reading was the only significant unique predictor ($\beta = .59, p = .049$; $R^2 = .048$). Cumulatively, the model suggests that reading skills are the strongest predictors of HIL outcomes\(^2\).

We also ran a second, exploratory multiple regression analysis in which we included demographics (gender, age, educational

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\(^2\)Given the high correlation between WRAT Reading and Math ($r = .91$), we also ran these predictors in separate models (alongside the other two predictors of educational attainment and Digital Literacy). The same pattern of findings was observed, only reading was a unique predictor beyond other included variables in the model. Thus, the high correlation between reading and math does not suggest that reading is obscuring the predictive relation of math to HIL outcomes.
attainment) and the only significant, unique predictor from our previous model (WRAT Reading) as predictors of HIL \((F[4, 67] = 5.044, p = .001;\) see Table 5). We were unable to control for age and gender in our previous model because of the small sample size \((N = 75)\), and thus, we wanted to examine whether WRAT Reading remained a significant predictor after accounting for additional demographics. Jointly, these predictors accounted for 23.1% of the variance in HIL. WRAT Reading remained the only significant unique predictor \((\beta = .38, p = .009; R^2 = .082)\).

### Table 4: Multiple Literacies and Educational Attainment Predicting Health Insurance Literacy

<table>
<thead>
<tr>
<th>PREDICTOR</th>
<th>COEFFICIENT</th>
<th>SE</th>
<th>t-VALUE</th>
<th>p-VALUE</th>
<th>UNIQUE R²</th>
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<td>Reading</td>
<td>.585</td>
<td>.291</td>
<td>2.010</td>
<td>.049</td>
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<td>Math</td>
<td>-.256</td>
<td>.291</td>
<td>-.882</td>
<td>.381</td>
<td>--</td>
</tr>
<tr>
<td>Digital Lit</td>
<td>-.031</td>
<td>.153</td>
<td>-.203</td>
<td>.839</td>
<td>--</td>
</tr>
<tr>
<td>Edu Level</td>
<td>.193</td>
<td>.156</td>
<td>1.234</td>
<td>.222</td>
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**Note:** We only report unique \(R^2\) estimates (based on Type II sums of squares) for significant predictors.

### Table 5: Demographics and Reading Predicting Health Insurance Literacy

<table>
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<tr>
<th>PREDICTOR</th>
<th>COEFFICIENT</th>
<th>SE</th>
<th>t-VALUE</th>
<th>p-VALUE</th>
<th>UNIQUE R²</th>
</tr>
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<tr>
<td>Reading</td>
<td>.383</td>
<td>.143</td>
<td>2.674</td>
<td>.009</td>
<td>.082</td>
</tr>
<tr>
<td>Gender</td>
<td>-.077</td>
<td>.110</td>
<td>-.699</td>
<td>.487</td>
<td>--</td>
</tr>
<tr>
<td>Age</td>
<td>.069</td>
<td>.111</td>
<td>.624</td>
<td>.535</td>
<td>--</td>
</tr>
<tr>
<td>Edu Level</td>
<td>.162</td>
<td>.141</td>
<td>1.145</td>
<td>.256</td>
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</tr>
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</table>

**Note:** We only report unique \(R^2\) estimates (based on Type II sums of squares) for significant predictors.

### Discussion

Having health insurance does not mitigate the effects of low health literacy or low HIL; according to the National Assessment of Adult Literacy, only 12% of individuals with employer-sponsored insurance have proficient health literacy (Kutner et al., 2006). Having employer-sponsored health insurance does not mean that individuals understand insurance terminology, understand how to select the best insurance coverage for themselves and their family, know what they have to pay for emergency room or office visits, prescription drugs, or to meet their deductible (Barnes & Hanoch, 2017; Bartholomae et al., 2016; Lowenstein et al., 2013). Adequate HIL allows an individual to have the confidence, ability, and knowledge to find and evaluate information about health plans, choose the best plan for their financial and health circumstances, and use that plan once enrolled (Quincy, 2012).
Very little extant literature studies the contribution of individual literacy skills and/or educational attainment to HIL. In our study, we examined the relationships between HIL, educational attainment, reading, math, and digital skills for LWE who have employer-sponsored insurance to better understand what contributes to HIL. Results indicate that reading skills may be a better indicator of HIL outcomes than math and digital literacy skills. Consumers enroll for health insurance on an annual basis; those with low reading skills may not be able to make informed decisions in choosing the most appropriate health plan for themselves or their family. Insurance terminology is complex and poor readers may not be able to understand either the terms or their use in insurance documents. Employers do not know the reading skill levels of their employees, but they do have educational attainment level. While research indicates that educational attainment is not always a great predictor of reading level (e.g., Miller, Greenberg, Hendrick, & Nanda, 2017), the correlation in this study between educational attainment and reading scores suggests that employers may want to consider giving additional support especially to those employees who only have a high school diploma or less, and who are trying to make decisions about employer-sponsored health insurance.

There are several limitations in this study. First, the study design included a small sample size of 75 LWE in a single employee setting, limiting generalizability. In addition, the small sample size precluded us from considering educational attainment in terms of less than a high school diploma versus a high school diploma (or comparing several categories from less than high school to completing postsecondary and beyond education). Second, the moderate to strong correlations among the literacy-based constructs \((r_s=.63-.91)\) created some suppression effects (as seen by the negative beta weight estimates for math and digital literacy; Table 4), which warrant further investigation. Third, we measured only one element of numeracy (calculations), which limited the broader understanding of numeracy and risk as it relates to the selection and use of health insurance. Fourth, as reported, the reliability of the HIL measure was low for our sample. We were not able to locate studies that utilized this direct skills assessment measure. For example, we considered using the HIL measure developed by the American Institutes of Research as it covers some of these constructs, however, this measure is a self-reported behavior scale, and we were interested in directly measuring knowledge and skills when using health insurance. Further research needs to be conducted to analyze whether the KFF Health Insurance Literacy Ten-Question Quiz (KFF, n.d.) should be used to measure HIL in larger samples with various levels of literacy skill.

Additionally, our variables were limited to performance-based measures and did not consider socio-ecological factors such as genetics, biology, language, socio-economic status, beliefs, and attitudes. These factors interact with the social context of family, culture, community, the health care system, and entrenched disparities (Anker, Reinhart, & Feeley, 2011; Berkman, Sheridan, Donahue, Halpern, & Crotty, 2011). Health needs also change across the life span, as does the need for health literacy and HIL (Manafo & Wong, 2012; Nutbeam, 1999; Sambamoorthi & McAlpine, 2003). We believe incorporating socio-ecological factors is important for future studies.

Finally, we did not consider choice architecture in this study. Choice architecture refers to how individual choices are influenced by the way information is presented (Thaler & Sunstein,
Different employer or insurer tactics include setting defaults (make no selection and default to the prior year’s health plan), framing (making some choices appear more positive or negative) or adding numerous options (too many choices to carefully consider) (Barnes & Hanoch, 2017; Thaler & Sunstein, 2008). Considering how to structure choices for adults with low reading and educational attainment may make understanding and using health insurance easier.

**Implications of the Study**

This study has practical implications for both employers and for the adult education system. We provide recommendations for each. While we address adults with low literacy skills in our recommendations, we believe that these recommendations are appropriate for adults of all literacy levels who need to access, understand, and use health insurance documents.

**Recommendations for Employers**

LWE with poor reading skills may have an easier time understanding health insurance in face-to-face conversation rather than having to read lengthy documents (National Academies of Sciences, Engineering, and Medicine [NASEM], 2017). Human Resource personnel should take care to explain complex health insurance concepts using everyday terminology. In one study, 100% of consumers preferred the word “doctor” over “primary care provider” or “health care professional” (NASEM, 2017). Further, there is an immense amount of information that is presented in health insurance documents. It is recognized that much of the information that is written in these documents must be included due to legal requirements. However, by using plain language, simple numerical examples, and streamlining the actual plan, challenges faced by the employee can be reduced. Using plain language and meaningful visuals that help convey the main message are often helpful for adults with low reading skills. Some examples include using headings and bullets to break up text (White, 2012). White space and a simple font that is at least 12 points often makes text easier to read (White, 2012). Other elements of plain language include using common words, sticking to a few main points, using short sentences, and using an active voice (CDC, 2017). Associating numerical information with visuals can be helpful; numbers need to be interpreted in order to be meaningful, and often are difficult to understand if they require computation or are without a broader context (IOM, 2014).

While the actual health insurance documents may not be able to be changed, providing employees with enrollment information that is in plain language and with simplified text, numbers, and visuals can help employees with low literacy skills better understand health insurance terminology and their choice options (Bartholomae et al., 2016). These materials include outreach and informational materials, health insurance plan information and application forms. Further, face to face discussions about health insurance options can be helpful for many employees. The number of health plan options and the decisions to be made within those options can also be challenging for employees with low literacy skills. Some methods to improve the decision-making environment for employees are reducing the number of insurance options, presenting choices in some order of value, creating meaningful defaults, and/or providing standardized coverage options (Barnes & Hanoch, 2017; Johnson et al., 2012).

**Recommendations for Adult Education Practitioners**

Adult education practitioners can also help their
students by using health insurance documents as examples of authentic material to use in class. An “Explanation of Benefits” received from an insurance company that shows how much they have paid and how much the patient/student owes for health care services is a good example of a common health document that is laden with terminology that adult students with low literacy skills may not understand. An adult education teacher can help students decipher and understand hard to read words like co-insurance and deductible. As another example, insurance companies provide a “Statement of Benefits” to describe what is covered under an individual’s health insurance plan. This document can be used to help adult students learn how their health coverage works by becoming familiar with the words and what they mean. Since not all “Statements of Benefits” will look the same, students could work with their own documents at home and bring them to class to describe and discuss their individual health insurance coverage. There are also organization websites such as the Center for Disease Control (cdc.gov) and the U.S. Centers for Medicare and Medicaid Services (health.gov) that are written in a health-literate format for adults with low reading skills and can be used by classroom teachers.

In terms of numeracy, the numeracy skills required to understand health insurance are complex, and include skills such as basic calculations and computation (frequency, percentage, inference), analytical (reading tables or graphs, estimating uncertainty), statistical (risk, probability) and decision-based numeracy skills (seeking information, attending to numeric information in a chart or graph, recalling numeric information, and the affective meaning attached to numeric information) (Apter et al., 2008; Peters, 2012). Adult education practitioners should consider covering diverse numeracy skills in their classrooms, as well as applying them to authentic tasks such as health insurance forms. Specifically, in addition to performing simple calculations, individuals must be able to competently read and understand numbers and mathematical operations in the context of phrases and paragraphs, complex graphical displays, and unfamiliar text-heavy documents. With regard to digital literacy skills, instructors can help students learn how to access authentic health materials and information on the Internet and guide them to easier-to-read websites. A challenge for adults with low skills can be knowing which websites contain credible information.

Conclusion

Health care expenses are the largest and fastest growing employee-related expense for businesses in the United States (Society for Human Resource Development, 2017). Human Resource professionals are often charged with managing those health care costs through a variety of strategies including creating consumer-directed health plans (e.g., health savings accounts), offering wellness programs, and offering multiple choices of health plans. Many employees take advantage of these flexible insurance offerings, however, LWE with poor reading skills are less likely to be able to access, understand, and use these programs because they may have trouble with even basic health insurance terms and concepts. It is important for Human Resource practitioners to give additional support to LWE, and for adult education practitioners to teach the types of information needed to be able to understand and complete health insurance forms.
Appendix

Demographic Questions

1. How old are you?

2. Are you a man or woman?

3. How would you describe yourself:
   a. White
   b. African American
   c. Asian
   d. Other

4. What is the highest level of education you’ve received?
   a. Less than high school
   b. High School Diploma
   c. GED
   d. Technical Certificate
   e. Some College
   f. Associates Degree
   g. Bachelor’s Degree
   h. Don’t Know/No Response
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Journeys of Transcultural Literacies: Working Toward Transformative Learning in Adult Literacy Education

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Abstract

Transformative learning involves significant personal and social growth. Globalization, immigration, changes in socioeconomic patterns, geopolitical tensions, and advances in technology challenge teachers to understand and mobilize the changing dynamics, practices, and contexts of learning and literacy in more complex ways (Luke & Elkins, 2002). Transcultural literacies acknowledge multiple dimensions of literacy learning that build upon learners’ unique talents and aspirations. The use of powerful texts that highlight local and global themes can resonate with adult learners coming from diverse cultural backgrounds. Connections between transcultural literacies and dimensions of transformative learning are highlighted in this study.

This research study was motivated by my own observations of literacy and learning in a time of increased immigration and cultural diversity, and the reality that adult literacy classrooms should be reflecting these changes (Magro & Ghoryashi, 2011). Dagnino (2012) writes that “physical and virtual mobility has indeed become the main trope of societies characterized by ‘super-diversity’ and the dynamic interplay of alternative/multiple modernities” (p.2). Along these lines, Pennycook (2007) defines transculturalism as “the fluidity cultural relations across global context” (p.91). Global flows, transnational interactions “loosen local populations from geographically constrained communities, connecting people and places around the globe in new and complex ways” (Miller, 2006, p.1). Miller suggests that these dynamic flows and mobilities open up new possibilities for a “worldwide” curriculum that disrupts the status quo and embraces plurality and social justice.

Transcultural literacies explore the connections literacies between local ecologies and global events (Orellana, 2016). Honeyford and Watt (2017) write that now, more than ever, teachers in both urban and rural areas are seeking new texts and learning resources that better reflect the linguistic and cultural pluralism that exists today. Too often, historically marginalized youth and adults have been harmed by educational institutions; these students have suffered from colonial, racist, sexist, elitist, and homophobic abuse that may have caused them to abandon “traditional” education.
A transformative shift in literacy learning would work to discover and strengthen learners’ existing literacies, talents, and experiences. In particular, a key challenge for teachers is to help their students interrogate and understand the way these forces interact and impact their own lives, since local knowledge is always linked in some way to the “dynamic flow of more global, sociocultural, economic, and political forces” (Honeyford & Watt, p.4).

This study explores the important connections between transformative theories of adult learning and transcultural literacies. How do teachers conceptualize their role and responsibility as adult literacy educators? What values, beliefs, and ideals guide their practice? To what extent do the changing social, cultural, and geopolitical landscapes inform educators’ pedagogical decision making in terms of text choices and curriculum resources for adult learners? What do they hope that adults in their classes will learn? Do the educators have preferred teaching and learning strategies that create a positive learning climate in a time of great change?

**Trajectories of Immigration: Understanding the Context of This Study**

Relationships between adult learners, teachers, and administrators in educational systems can be viewed with new potential. In an increasingly globalized world, transcultural literacy learning challenges educators to explore linguistically and culturally diverse pedagogies. Geopolitical shifts in power, conflict and war, environmental deterioration, and perceived economic prosperity and improved quality of life make North America a destination for thousands of migrants. There are now about 192 million people living outside their place of birth; countries like Canada are increasingly becoming the final destination for a growing number of migrants, both forced and voluntary (Magro & Ghorayshi, 2011). Its population continues to reflect the changing patterns in immigration and resettlement worldwide. For example, estimates project that 1 in every 3 Canadians will be born outside of Canada in the next decade (Government of Canada, 2016).

This study was completed in Winnipeg, Manitoba. As the geographic center of Canada, the changing demographics in Winnipeg reflect wider changes in immigration throughout Canada and in North America. For example, in 2016, immigration to Manitoba increased to 23.8%; this increase was attributed in part to the 1,233 Syrian refugees that resettled in Manitoba because of the National Syrian Refugee Resettlement initiative. Indeed, “of all permanent residents to Manitoba in 2016, 22.2 per cent landed as refugees and protected persons (3,370), the highest number of refugees since 1990 and the highest number in Canada” (Immigrants Facts Manitoba, 2016). In addition to financial hardship and the loss of one’s homeland, refugees are often recovering from trauma and loss (Magro, 2016; Magro & Ghorayshi, 2011). Community support, education, and counseling for children, youth, and adults are a vital part of helping these newcomers establish themselves in Canada.

Linguistic and cultural diversity are also on the rise in Winnipeg and other major cities and rural regions in Canada. In 2016, 52.4% of Manitoba’s new permanent residents arrived from Asia and the Pacific regions, followed by Africa and the Middle East (32%), Europe (10%), and South and Central America (3.6%). In addition to English and French, the top ten languages spoken by newcomers included Tagalog, Punjabi, Tigrinya, Arabic, Russian, Chinese, Gujarati, Somali, Urdu, Korean, Yoruba, and Spanish. While many economic immigrants possess the skills and
knowledge that would enable them to successful secure positions in engineering, the natural and applied sciences, business and finance, and trades and transport, other newcomer adults seek out adult education as a first step in completing Grade 12 and moving forward with their professional or technical education.

The challenge is for adult educators to be sensitive and aware of current political situations and the psychological and situational barriers (e.g., financial hardship, the loss of one’s family and livelihood in the case of many refugees) that can impede learning (Magro & Ghorayshi, 2011). In discussions, teachers could be more open to integrating viewpoints relating to different cultural backgrounds. A willingness to make meaningful connections with adult learners in an effort to understand their complex histories and backgrounds is a starting point.

Literature Review

Significant parallels and similarities can be drawn between theories of transformative learning and transcultural literacies. The central ideas of transformative learning reinforce and support the emerging literature on transcultural literacies. A common thread connecting the two is the emphasis on expanding ways of knowing that acknowledge and even encourage critical reflection, creativity, ambiguity, and complexity. A transformative approach to teaching adult literacy would enable learners to “develop a critical awareness of social structures and powerful discourses and their impact on the construction of individual subjectivities” (Jarvis, 2006, p. 69). A potentially transformative process could be encouraged by adult educators in their curriculum choices and preferred teaching and learning strategies.

Along these lines, transcultural literacies highlight a creative way of looking at learning processes and education; they can be conceptualized as dynamic personal, social, and cultural spaces where new ways of knowing, thinking, and acting can emerge. In English language arts, knowledge can be communicated through storytelling, poetry, art, creative writing, and drama. Short (2016) writes that the use of global literatures, for example, can help students “break cycles of oppression and prejudice between diverse cultures” (p. 10). Texts have the potential to be transformative if learners are given opportunities to dialogue and reflect upon the way that characters solve problems and manage life challenges (Jarvis, 2006; Short, Day, & Schroeder, 2016).

This study is grounded in the transformative perspective of adult literacy, which is a lifelong journey that enables individuals to meet “the challenges and complexities of life, culture, the economy, and society” (UNESCO, 2010, p. 38). A transformative approach to adult literacy learning highlights an “asset” view of learning; there is an invitation for adult learners to bring into the classroom context their own experiences, narratives, languages, identities, cultural artefacts, music, and aspirations (Freire, 1993; Miller 2006). Transformative teaching is culturally responsive teaching and it involves a creative dynamic that factors in local and world events (Taylor, 2006). Educators also need to become more aware of the way overlapping sites of learning (e.g., the workplace, families, spiritual organizations, prison systems, voluntary agencies, film and television, new technologies, etc.) influence learning processes.

A transformative curriculum would encourage and value adult learners’ visions and support transcultural learning. It would support learners as they work to “define shared interests and
common values across cultural and national borders” (Slimbach, 2005). Not only would a transformative curriculum grounded in transcultural learning be vitally important to the learner, but also it could serve to engage learners in efforts to address global challenges.

Adult learning centres (ALCs) can be havens of creativity and resilience when a climate of respect and intercultural competence is transformed from an ideological construct into everyday actions enacted by individuals. Global awareness, world learning, foreign language proficiency, empathy and transcultural understandings are among the skills that individuals can learn to develop (Slimbach, 2005). Giroux (1993) further notes asserts that central to learning “is the need for students to understand how cultural, racial, ethnic, and ideological differences enhance the possibility for dialogue, trust, and solidarity” and that “literacy must be rewritten in terms that articulate differences with the principles of equality, justice, and freedom rather than with those interests supportive of hierarchies, oppression, and exploitation” (p. 368). New literacies evolve because of the continual interaction with the physical, social, and cultural environment (Luke & Elkins, 2002). Transcultural literacies acknowledge “hybrid identities” and “cultural fusion” which can result from these interactions (Cuccioletta, 2001/2002).

Transcultural literacies embrace the importance of understanding and valuing underrepresented narratives. For example, Graham Reynold’s (2016) Viola Desmond’s Canada: A History of Blacks and Racial Segregation in the Promised Land details the racism that African-Canadians faced as they fled the United States in search of a safe haven. This can be compared with the narratives presented in Isabel Wilkerson’s (2010) The Warmth of Other Suns recounting the “great migration” (1920-1970s) of African-American people from the southern states to find a better life and the protection of their civil rights in cities such as Chicago, Detroit, and New York. Under reported narratives provide individuals with opportunities to challenge cultural stereotypes and misconceptions. Chimamanda Ngozi Adichie (2015) recognizes the value of understanding complex and unique narratives:

Stories matter. Many stories matter. Stories have been used to dispossess and malign, but stories can also be used to empower and to humanize. Stories can break the dignity of a people, but stories can also repair that broken dignity...when we reject the single story, when we realize that there is never a single story about any place, we regain a kind of paradise. (p. 22)

Adichie’s message has particular relevance for teachers who hope to create a truly culturally-inclusive classroom.

Connections between Transcultural Literacies and Transformative Learning

Transcultural literacy learning is a transformative process that opens up new possibilities for understanding the multi-layered dynamics of literacy and transcultural learning (Cranton, 2006). The idea of significant personal transformation and openness to new perspectives is at the heart of transformative learning (Mezirow, Taylor, & Associates, 2009). For Mezirow (1981), social change is rooted in individual perspective transformation. As a facilitator, mentor, and challenger, the adult educator can help individual learners “realize their potential for becoming more liberated, socially responsible, and autonomous” (Mezirow, 2000, p. 30). Learning objectives may be personal (e.g., such as getting a better job or helping) or social (e.g., organizational change, community development, etc.).

Drawing from both the humanistic and
constructivist perspectives of learning, transformative learning is a “deeper level” learning that, as Clark (1993) writes, “produces more far-reaching changes in the learners than does learning in general, and that these changes have a significant impact on the learner’s subsequent experiences” (p. 47). King (2005) further asserts that “the roots of transformative learning are found in the critical reflection of the being and self” (p. 32). In an educational climate of trust, they can ask difficult questions of themselves and others. O’Sullivan and his associates (2002) suggest that transformative learning “involves experiencing a deep, structural shift in the basic premises of thought, feeling, and actions. It is a shift of consciousness that dramatically and permanently alters our way of being in the world” (p. 11).

Mezirow’s (1981; 1991) theory of transformative learning describes how individuals interpret, construct, validate, and reappraise their experiences. For Mezirow (1981, 1991), learning includes not only the acquisition of new information, but also how we understand, analyze, and interpret our world. Individuals can “reframe” their perspectives through problem solving, action learning, critical self-reflection gained from applying insights learned from another person’s narrative to their own experiences, or through the exploration of thought and feeling in psychotherapy (Mezirow and Associates, 2000). “Reflection is the central dynamic involved in problem solving, problem posing, and transformation on meaning schemes and meaning perspectives” (Mezirow, 1991, p. 116).

Transcultural literacies and transformative learning processes are dynamic, evolving, and interconnected to community, cultural, social, psychological, and geographical contexts. Slimbach (2005) writes that transcultural learning is not simply about ”adding to a knowledge base of different cultures and ways of beings”(p.213); instead, it involves a deeper level awareness that values “the true, the good, and the beautiful wherever it is found” (p.213). Transcultural learning involves “[thinking] outside the box of one’s motherland, seeing many sides of every question without abandoning conviction, and allowing for a chameleon sense of self without losing one’s cultural center” (Slimbach, 2005, p. 211). Within the context of this study and the teaching of English language arts, adult literacy educators would provide opportunities for students to reflect on their readings and discussions.

Methodology and Data Collection

This qualitative study draws upon phenomenology and narrative inquiry. Merriam (2007) writes that “in the same way that ethnography focuses on culture, a phenomenological study focuses on the essence of the structure of an experience” (p. 7). van Manen further writes: “a phenomenology that is “sensitive to the life world explores how our everyday involvements with our world are enriched by knowing in-being” (p. 13). He explains that phenomenological interviews have the potential to be transformative as new ideas and perspectives emerge in the discussion. I wanted to learn more about adult educators’ experiences as they continue to adapt to meet the changing demographics of adult learners in Manitoba. I wanted to better understand the dynamic interplay between learners, teachers, texts, and adult literacy education practices. The adult literacy educators that I interviewed were deeply committed to social justice education and adult literacy advocacy. Many of their students had experienced hardship in life: chronic
unemployment, domestic violence, mental health challenges such as depression and anxiety, and poverty. Embarking on a new educational path was an initial step in “reclaiming” their lives and building a stronger future for themselves and their children.

The interview data was collected between 2015-2017. I kept detailed research notes of my interviews with the educators; in addition, I audio-taped, transcribed, and analyzed each interview looking for emerging themes such as expanding perspectives through global literature; teaching for change; educators as advocates and challengers; and creative teaching strategies that tapped into imaginative and emotional dimensions of learning. The teachers provided me with pedagogical artifacts such as project outlines, assignment questions, resources, texts, and examples of student writing. The interview process was not “formulaic” but rather more of an open-ended discussion that explored themes connected to transformative education, social justice, and creating a culturally inclusive curriculum for adult learners.

Five teacher participants’ perspectives are presented in this study. I felt that their perspectives best reflected the ideas and themes from the larger participant group of ten. The teachers in this study had 15 years or more of experience working with adult literacy learners. They worked in culturally diverse centres with students who were not only Canadian born, but also came from Africa, Asia, the Middle East, South and Central America. These educators also worked with First Nation, Metis, and Inuit learners.

I met these teachers in my role as a consultant, volunteer, conference presenter, and through connections with the teachers I made. The 90-minute interviews explored the educators’ perspectives on their role and responsibilities, the decision making that factored into the educators’ specific pedagogical choices of texts and resources, their preferred teaching and learning strategies, and the way the changing cultural, social, and political climate informs their teaching and their students’ learning. I drew upon van Manen’s description of the art of the researcher in the hermeneutic interview. A key goal “is to keep the question (of the meaning of the phenomenon) open, to keep himself or herself and the interviewee oriented to the substance of the thing” (p. 98). I was mindful of Kvale’s (1996) concept of the “inter view” which emphasizes the interchange of ideas between two individuals regarding ideas of mutual interest. Pseudonyms are used in the following excerpts.

A fundamental aim in qualitative research is discovery. I analyzed the data collected from the interviews according to concepts, metaphors, and images that the teachers shared about their teaching roles, experiences, and pedagogical insights. Conceptual analysis in phenomenological research is concerned with the nuanced content of linguistic expression (Honeyford & Watt, 2017). In re-reading the interview transcripts, I looked for recurring words, themes, and images that provided an insight into the teachers. Learning as a journey, bridging cultural divides through world literature, adult learning as a process of reclaiming selfhood, fostering engagement, motivation, and personal agency, and learning as imagining new life possibilities were among the themes that best reflected the educators’ intent to encourage their students to “read and write their worlds” (Freire, 1997). I then linked these themes to the theoretical perspectives from transformative learning theories and transcultural literacies.
Findings

Each teacher’s perspective suggest teaching and learning approaches that would encourage adult learners to investigate and explore complex issues and ideas about themselves and their worlds. In transformative learning, the teacher’s role shifts from being a “manager” or “instructor” to a challenger, an advocate, a co-learner, an artist, a resource person, a researcher, a co-investigator, and a facilitator (Magro, 2016; Mezirow, 2000). While the teachers that I have interviewed did not necessarily use the term “transcultural” and “transformative” in expressing their approaches to literacy learning, many of their ideas and their approaches to curriculum development and assessment reflected key themes from the literature in transformative learning and transcultural literacies. (Magro, 2016; Mezirow & Associates, 2009; Taylor, 2006).

Connecting the Personal to Social Justice

Justine, a senior high English language arts and Media Studies teacher at a large inner city adult education centre, views her role as an advocate and challenger. While the classroom can potentially be a place for students to develop self-efficacy and personal empowerment, Justine explained that students can also learn about competition, unequal self-worth, and relational aggression. Justine emphasized that news, current events, and television programs also shape her students’ understanding of the world:

I draw my insights from critical pedagogy. Part of being a critical educator is seeing that there is not a single definition of hope, social justice, or equity. It is not so much about covering content as it is about the depth of understanding. Learning to me involves a process of challenging my students to look at the complexity of issues from an intersection of race identity, culture, and experience. I use international short stories to encourage cultural awareness. We do not use art and poetry enough in teaching. I challenge my students to create a visual poem and symbol book representing key themes of the stories that impacted [them the] most. I want students to leave my class having read stories set in the Middle East, Africa, and Asia. The curriculum framework has to be ever evolving; otherwise, adult will lose valuable opportunities to learn.

Justine emphasized the importance of reading and reflecting upon powerful transcultural texts to encourage critical thinking about social justice issues such as discrimination and racial prejudice:

Many of my students find Sherman Alexie’s *The Absolutely True Diary of a Part-Time Indian* riveting. Alexie shows how trauma is part of the “normal” experience for many Indigenous people. This is a book that can help non-Indigenous students develop greater empathy for the experiences of First Nation youth living “in between worlds”—the reserve, and the larger city here they need to adapt to quickly in order to survive. Students who have experienced hardship and discrimination can also relate to Alexie’s character Junior. He is sensitive, witty, and artistic, despite the pain of losing close family members to suicide and tragic events. He pushes on. I want my students to create a better future by learning about the inequities in our world.

Justine’s emphasis on helping her students make personal connections to literature and non-fiction illustrates Mezirow’s (2000) concept of “narrative reframing” or “applying a reflective insight from someone else’s narrative to one’s own experience” (p. 23). Interdisciplinary links between English language arts, politics, sociology, Aboriginal issues, and psychology are further explored in a context of “deeper” level learning (Magro, 2016).

Luiz has taught in Korea, Japan, and in various high schools in Winnipeg. He currently teachers courses in rhetoric, literature, and communication at an adult education centre in the city. With a background in philosophy and literature, Luiz emphasized the importance of creating a climate where a critical dialogue about world events and students’ lives can occur:

The humanities can be a guide to life. I get excited by ideas and in my classes, I want to encourage a playful attitude that is
also balanced by academic rigour. There is something spiritual and therapeutic in the study of literature that you cannot find in other disciplines. I believe that anyone can be reached through literature. A book like J.D. Salinger’s *Catcher in the Rye* can be an exploration into identity, belonging, and the search for authenticity in a fragmented world. Charlotte Bronte’s *Jane Eyre* is a powerful novel to open up discussions about life, death, love, friendship, the importance of having faith in yourself, and finding your way in a hostile world.

Luiz described learning as “a metaphorphosis, a disruption, and a rearranging of oneself. It may be a violent transformation and an expedition into undiscovered regions of the self.” He used words and phrases that connected learning to “journeys and expeditions into the unknown.” Teachers and students are “explorers and wanderers in search of new awakenings, insights, and possibilities.” Effective teaching would help adult learners understand barriers to communication, self-awareness, and empathy. Luiz explained: “we live in a time of chaos, anxiety, and disconnection. We are living in an increasingly synthetic world. It is aggressive, packaged, and formulaic. The poetry of our age is advertising! Experiences are often vicarious and there is the persistent danger of being side-tracked by artificial experiences and misunderstanding of social media.”

Transcultural literacies encourage an understanding of local and global events. Naqvi (2015) writes that “identity shaping issues having to do with global events and political upheavals and our students’ awareness and understanding about these events is crucial.” (p. 5). Luiz emphasized that effective adult educators must be aware of the nuances in our society if meaningful conversations can occur in the classroom.

Steven, a teacher in a large adult learning centre where over 70 languages are spoken, explained the importance of encouraging students to read a range of texts that focus on a social justice theme such as exclusion, loneliness, discrimination, and ostracization. He teaches English, history, and psychology. In his classes, Steven poses questions that challenge the students to think critically about connections between local and global events. What are the similarities in patterns of colonialization, for example, that have taken place in large parts of Africa, North America, and Australia? He believes that essential questions, discussions, and research opportunities can bring to light “disruptive knowledge” so that students begin to challenge accepted beliefs and recognize alternative possibilities. The texts he chooses explore class, culture, ethnicity, religion, relationships, family, and global issues.

Teaching English language arts has the potential to be transformative if teachers are knowledgeable and willing to take risks. Teaching from a social justice frame to me involves identifying the contradictions and hypocrisy in our society. Students can see these contradictions. You are helping them understand their world. There is a depth and richness in literature that is ideal for exploring social concerns such as crime, poverty, and unjust situations. Adult learners can identify with the outsider theme.

Steven spoke of a recent book review written by a Grade 12 student who compared the experiences of racism that Ta-Nehisi Coates (2015) recounts in his memoir *Between the World and Me* and James Baldwin’s (1955, 2012) modern classic *Notes of a Native Son*. Themes that highlight identity, belonging, and family fragmentation can become a catalyst for students to discuss and write about their own life experiences. Steven emphasized that students find it interesting to examine the way characters (some fictional, some real) cope with challenges and tragedies in life. “The challenge we have is to take steps to break down racial barriers and misconceptions.” There is an emphasis on engaging students’ emotions. Mezirow (2000) writes that “subjective reframing involves an intensive and difficult emotional struggle as old
perspectives become challenged and transformed” (p. 23). Similarly, Mackeracher (1997) aptly writes that learning, particularly in adulthood” focuses primarily on “transforming or extending the meanings, values, skills, and strategies acquired in previous experiences” (p.33).

Reclaiming and Rebuilding the Self in a Transforming Journey

Transformative learning can involve significant personal change and educators often see their role as a mentor who assists learners on a journey toward building confidence and agency. Lou describes herself as an advocate, and a “challenger of misconceptions.” She explains that so many of her students struggle with low self-esteem, negative body-image, and mental health challenges such as depression. “So many youth and adults at our school have been traumatized and I see myself as a challenger of their own misconceptions that they have about themselves. I want them to reverse their negative self-image and see themselves as vital and vibrant.”

Lou begins her classes with reading aloud inspiring books such as *The Child Called It* by Dave Peltzer, *Runaway* by Evelyn Lau, *Persepolis* by Marina Satrapi, *Running the Rift* by Naomi Benaron and Wonder by R.J. Paladio. She integrates short films like “The River” by Ericka MacPherson and Katherena Vermette. This powerful short film presents an Indigenous perspective on the experience of searching for a loved one who has disappeared. Lou encourages her students to write about their thoughts in their individual notebooks:

> Creativity to me is change and effective teaching is being open to my students’ insights and observations. I see myself as a positive role model who can trust the students can trust. In sharing my reading interests with my students, I am hoping that they can be inspired to read more. Rather than teach writing style from a formulaic position, I observe what the students are responding to and writing about in their notebooks. I comment, have conversations, and ask questions. I might say: ‘This looks like a poem here or this could become a great tribute.’

As a facilitator and mentor, Lou helps her students “translate” their dreams into productive accomplishments. Lou also values and validates students’ “vernacular” literacies by encouraging her students to link textual themes to their own personal stories and experiences. Lou’s application of multimodal literacies reinforces the idea that learners can express meaning in multiple ways through music, drama, artistic creations, photography, film, poetry, and art gallery reflections. Bringing the outside community influences inside the classroom is one way to meaningfully engage adult learners in literacy development. These varied texts become catalysts that illuminate experiences; they are a catalyst that can open a dialogue where students inform and are informed by texts and other learners. Lou has opened up opportunities for her students to explore their interests and talents; literacy learning is multi-layered, and it involves personal and transformative growth. By “purposely inviting the interplay of contexts, positionality, and power, new spaces and possibilities are produced” (Honeyford & Watt, 2017, p.6). Lou described a successful learning experience involving multi-modal texts:

> Paintings tell a story and students can often connect with visual images. I asked the students to respond to Francisco Goya’s 1814 painting ‘The 3rd of May’ as a way of introducing themes of war and resistance when we collectively read Ishmael Beah’s *A Long Way Gone: Memoirs of a Boy Soldier*. The students are amazed to read about Ismael’s journey from despair to hope. I connect the theme of courage to their own lives. They can convey their experiences of resilience and courage through storytelling and artistic expressions.

Working toward transformative learning, in part, encourages adult learners to make significant connections between their own lives,
diverse texts, and the larger social conditions and collective forces that impact them (King, 2005). Lou demonstrates this approach with her implementation of a transcultural curriculum that helps learners transform themselves and, ultimately, the world around them.

Discussion

Transcultural literacies and dimensions of transformative learning involve critical thinking, reflection, and openness to considering new perspectives. Rich learning experiences integrate personal and philosophical perspectives with imaginative, creative, and socio-cultural lenses. Shipp (2017) writes that “our curriculum, our rituals and routines, and intellectual connections to the texts being used in class” (p. 35). The data indicate that exploration of transcultural literacy through literary and non-fiction works can encourage transformative learning because, as Jarvis (2006) observes, “it requires students to make meaning rather than receive it” (p. 74).

The teachers in this study used texts as catalysts to encourage creative and reflective connections that link personal insights to local and global themes; learners were encouraged and allowed to make these connections because their teachers created the space for them to do so. Given today’s culturally diverse classrooms, adult literacy educators can create a welcoming and safe environment that encourages varied dimensions of literacy learning. Literacy educators need to become more aware of the socio-cultural backgrounds of their students.

Context, as Taylor (2009) notes, shapes adult education practices and it is through educator empathy and self-awareness that authentic relationships between teachers and learners can emerge. In the case of newcomer and refugee students, it is vital for educators to understand the complex political factors in countries worldwide that motivate individuals to seek a new life elsewhere. Adult learners are navigating unfamiliar educational, legal, political, and social terrain; in this context, it seems appropriate for the teacher to become more of a cultural guide such as those described above. Additionally, the teachers described here demonstrate that adult literacy curriculum can be dynamic, evolving, and grounded in way that value and validate learners’ existing talents and experiences.

The experiences of the educators in this study also suggest that teaching in a time of change demonstrate the need for an interdisciplinary approach to curriculum planning. Literature and non-fiction can be linked to world issues, psychology, sociology, and social justice themes. From this “transformative” perspective, literacy learning is not solely a technical process but rather, it involves an opportunity to explore power structures and social conventions that are culturally situated. The teachers demonstrate that a diverse selection of texts that reflects historical, personal, and cultural themes connected to equity, oppression, the environment, mental health and overcoming obstacles could provide a foundation for critical literacy development. They also emphasized the importance of going beyond “deconstructing a text” into using a text as a vehicle to create new knowledge through poetry, artistic representations, dramatic scenarios, research, and reframing problems from multiple perspectives through letters and diary entries. Personal agency and self-expression are encouraged.

Educators like Lou also reinforce Dozier’s (2017) observation that “works of art, including paintings and photography, encourage reflection, analysis, and evaluate thinking skills, that build success for students in both academic and workplace environments” (p. 27). Building on the importance of integrating philosophy, music, and visual arts
in teaching, Kazemak and Rigg (1997) write that “the imagination is indispensable for knowing the world. It and its often-attendants of creativity, love, beauty and tradition allow us to re-vision the world, seeing it anew” (p. 136). While not stating that their approach to literacy learning was transformative or transcultural, the educators’ views and practices did acknowledge that adult learning involved affective, imaginative, creative, and cognitive dimensions. Their practices highlight the way literacy learning can potentially enlighten and broaden learners’ perspectives. Transformative learning, as Jarvis (2006) notes, involves thinking beyond taken for granted assumptions. Fiction, works of art, and non-fiction, in particular, can:

- offer scope for imagining alternatives—different resolutions to familiar problems, alternative lifestyles, and moral choices—And the process of trying different viewpoints is part of the formulation of a new perspective—Textual study, by its very nature, challenges certain commonly held beliefs about knowledge and the making of meaning. (Jarvis, 2006: p.77)

A goal in transcultural learning, notes Slimbach (2005), is to “open windows to reality outside ourselves” (p. 214). Along these lines, literacy can involve deeper level connections and dialogue with individuals who have different histories and experiences. An important point to note is that this study focused on the perspectives of the adult educators. Dirkx and Smith (2009) write: “ultimately whether a learning experience is transformative rests with the learner, not us as instructors or facilitators. Our work is to help learners make deep connections with the subject matter” (p. 65).

**Conclusion**

Transformative literacy learning embraces a diversity of approaches to textual practices that encourage a creative re-imagining of texts and discourses, identities, histories, and culture (Luke, 2004). Rich learning experiences are interpreted through personal and philosophical lenses, cultural and historical frames, and imaginative and literacy perspectives. The idea of learning as a journey and the metaphors and images associated with journeys—discovery, mapping of ideas, exploration, and navigating new cultural terrain through world literature reinforce the idea that transformative learning is multi-layered, dynamic, and improvisational. Transcultural journeys of learning involve the capacity to “put oneself in another’s shoes—to apprehend their point of view and felt experiences is prerequisite to finally taking responsibility as citizens of the global community” (Slimbach, 2005, p. 218). Collectively, the adult educators’ perspectives described in this study emphasize a need to move beyond a linear conceptualization of literacy into a new paradigm that crosses cultural boundaries and disciplines.

Future studies could explore specific personality attributes of adult educators who are more likely to encourage transcultural literacies and transformative types of learning. For example, a teacher’s optimism, creativity, curiosity, openness to new ideas, problem solving abilities, a willingness to tolerate ambiguity, and resilience may positively impact adult learning processes. A particular text or teaching strategy could encourage a learner’s motivation, problem solving ability, or creativity. Systemic barriers for adult learners continue to exist as shifting demands and pressures for accountability increase along with an erosion of resources to help adult learners with specialized needs. A committed effort on the part of researchers, practitioners, program planners, and educational policy makers is needed to address these challenges.
References


The PIAAC Numeracy Framework: A Guide to Instruction

Donna Curry, Center for Adult Numeracy, TERC

Adult learners come to our classes at all different levels, with misconceptions, gaps in some areas but strengths in others. There is no class that is truly homogeneous, especially if the class is based on a one-time multiple-choice test. This messiness is one reason many adult education math teachers feel like the best way to work with their students is to have them all in separate workbooks (including “tech-based workbooks”) which typically focus on decontextualized procedural practice – a unit each on fractions, decimals, data, geometry, etc. And, because this is the model that most practitioners are used to seeing, they simply follow the workbook (or virtual lessons). They often have trouble figuring out how to differentiate instruction other than to have every student on a different page in the workbook. This means that there is little classroom discussion about topics of significance to students and students rarely see math as useful in their lives. Their main purpose for learning math in the adult education classroom is often just to pass the “test.”

The Program for International Assessment of Adult Competencies, better known as PIAAC, developed

What is PIAAC?

In 2013, the Organization for Economic Cooperation and Development (OECD) released the first results of a multi-cycle program of assessment of adult skills – the Program for International Assessment of Adult Competencies (PIAAC). Twenty-four countries—including the U.S. and most other developed countries in the world—participated in the first round of this assessment in 2011-12, which was designed to give countries critical information on how well-prepared their adult residents were to participate fully in the civic, cultural and economic life of their countries in the 21st century. In addition to assessing three key information-processing skills—literacy, numeracy, and problem solving in technology-rich environments—PIAAC included a skills use module, which collected information from each participant on additional skills used in the workplace, including communication, interpersonal, problem-solving and learning skills, as part of an extensive background questionnaire, which collected information on education and work history, in addition to demographic data, that would help each country understand the range and distribution of skills among its adult population so that it could use the assessment data to make important policy decisions about the best ways to improve adult skills. Taken together, these features of PIAAC make it the most comprehensive assessment of adult skills undertaken to date.
a numeracy assessment framework that was used internationally to assess adults’ numeracy skills. The assessment gauged adults’ (aged 16 – 65 years) numeracy skills across a full range, from adults with very low levels of numeracy to college level math ability. PIAAC’s assessment framework is based on two concepts: math as being use-oriented and math proficiency as a continuum. While this framework was designed to measure adults’ numeracy ability in a structured assessment environment (including adults’ home with trained evaluators), it is useful beyond its original intent. This framework can be used to help teachers better understand how to differentiate instruction while still focusing on a particular theme or topic in a classroom, ensuring rich discussions about topics of interests to students. This can be flexibly done once teachers become comfortable with the PIAAC numeracy framework.

In this article, we will discuss several key elements of the PIAAC assessment framework, including the definition of numeracy and numerate behavior, facets of numerate behavior, enabling processes that support such behavior, and complexity factors that determine the difficulty of the task requiring numerate behavior. Although we will discuss these in isolation, they are all integrated and interdependent. We will bring them all together to illustrate their interrelatedness near the end of this article. It is not necessary to remember what the various elements and factors are called. What is important is that teachers deepen their understanding of these various PIAAC numeracy components so that they can apply them by making tweaks to activities and tasks they assign their students. With a better understanding of the underpinnings of the PIAAC numeracy framework,

Table 1: Parallel tasks at different levels

**TASK 1:** Amy can only eat 10 g. of sugar per day. If she eats one serving of this cereal, how many more grams of sugar can she have during the rest of the day?

**TASK 2:** Compare the nutritional information of the cereal below with the cereal you usually buy. Create a chart showing how the two compare, then be prepared to explain which cereal is the healthier choice for your specific needs.

**TASK 3:** Amy’s doctor has told her that she needs to reduce her calorie intake down to 1500 per day. If she eats a serving of this cereal, explain what percent of her daily calorie intake she has consumed.

**TASK 4:** Amy can only eat 10 g. of sugar per day. If she eats one serving of this cereal, how many more grams of sugar can she have during the rest of the day?

| TABLES, IMAGES, AND FORMATTING |
teachers can efficiently differentiate instruction by adjusting features of a numeracy task.

Let's look at a quick example to get started. Teachers can differentiate by providing tasks that are both use-oriented and appropriate for students at different levels of proficiency like the set of tasks below which involve nutrition, a topic that is relevant to adults’ lives. Let’s take a quick peek at what four similar tasks involving nutritional information could entail. (We will look at these four tasks in detail later in this article. As you read about PIAAC’s framework, keep these tasks in the back of your mind.)

You can see that analyzing nutritional labels can seem like a fairly easy task or one that is quite involved. In this article we will look at the specific elements from the PIAAC Numeracy framework that teachers need to consider as they create tasks or activities to address the different needs of their learners. We will return to this set of examples later to see explicitly what elements are involved in making the task more or less complex.

Numeracy and Numerate Behavior

PIAAC defines numeracy as the ability to access, use, interpret, and communicate mathematical information and ideas, in order to engage in and manage the mathematical demands of a range of situations in adult life. In other words, adults are expected to do something with the mathematical information they interact with at ALL levels. We use math for a purpose (not just to pass the test).

We know that math has a purpose in our lives, way beyond passing a high-stakes assessment. Unfortunately, too often our students do not see the value of the math they are learning in class. Even when students know that they use math in their lives, they see the math taught in the classroom as just ‘school math’ – something that is done only in a math class for the purpose of taking a test. According to Givvin, Stigler, and Thompson (2011), “the intuitive concepts that supported their thinking and reasoning when they were younger began to atrophy, serving no purpose in the world of school mathematics” (p.5). Perhaps if teachers embraced PIAAC’s definition of math/numeracy, they would be more explicit in creating tasks or activities that give students opportunities to apply the math they are learning.

Let’s take a closer look at what it means to be use-oriented. Table 2 is a full description of what numerate behaviors involve, according to PIAAC.

The facets of numerate behavior listed above - contexts, responses, mathematical content/information/ideas, and representations - were key to the development of the PIAAC assessment framework and the development of PIAAC assessment tasks. These four facets should be fundamental in guiding teachers in using (or creating) instructional activities that move students toward increased numerate behavior that they can apply in multiple contexts.

Let’s look at each of these a little more closely.

**Facet 1: Contexts.** In our everyday life we encounter many numeracy tasks, some simple and some more complicated. The tasks may come from work, society and community, education and training, or from students’ personal/family lives. An effective teacher is someone who can point to many instances of these tasks to show her students the prominence of numeracy tasks in everyday life—or to ask her students to point out numeracy tasks and their importance in their own lives. The teacher needs to be a good listener to tune in to contexts important in students’ lives. This is critical since students’ needs and concerns may be different from those of their teachers. For example, students may be struggling to cope from weekly paycheck to
weekly paycheck, or to cope with stressful family situations, or a history of incarceration.

In an adult education classroom, the contexts might overlap for students with different levels of skills. Health care, for example could be a context that applies to all levels of learners; it is part of adults’ personal lives. If students are working – or preparing for a particular kind of work – the context can readily come from situations that they could encounter on the job. These contexts should form the basis for rich discussions in the classroom that show the value of doing math.

**Facet 2: Responses.** The ways in which adults react to mathematical tasks or information are shaped by their purposes for using that information. PIAAC classified these purposes into three groups of cognitive strategies:

- those required to identify, locate, or access mathematical information;
- those required to act upon or use mathematical information; and
- those required to interpret, evaluate, analyze, or communicate mathematical information.

In almost any mathematical task, adults need to identify, locate, or access information in order to address the situation. This could be as simple as finding the price tag on a piece of clothing to determine its cost, or checking the estimated area that a can of paint will cover. However, locating information isn’t always as easy as reading a label. Information can be more challenging to access or locate, such as scouring through a set of data to look for patterns or relationships or to determine what is needed to make a point.

**Table 2: Numerate behavior – key facets and their components** *(from Conceptual Framework, p. 21)*

<table>
<thead>
<tr>
<th>Numerate behavior involves managing a situation or solving a problem...</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. in a real context:</td>
</tr>
<tr>
<td>• everyday life</td>
</tr>
<tr>
<td>• work</td>
</tr>
<tr>
<td>• society</td>
</tr>
<tr>
<td>• further learning</td>
</tr>
<tr>
<td>2. by responding:</td>
</tr>
<tr>
<td>• identify, locate or access</td>
</tr>
<tr>
<td>• act upon and use: order, count, estimate, compute, measure, model</td>
</tr>
<tr>
<td>• interpret</td>
</tr>
<tr>
<td>• evaluate/analyze</td>
</tr>
<tr>
<td>• communicate</td>
</tr>
<tr>
<td>3. to mathematical content/information/ideas:</td>
</tr>
<tr>
<td>• quantity and number</td>
</tr>
<tr>
<td>• dimension and shape</td>
</tr>
<tr>
<td>• pattern, relationships, change</td>
</tr>
<tr>
<td>• data and chance</td>
</tr>
<tr>
<td>4. represented in multiple ways:</td>
</tr>
<tr>
<td>• objects and pictures</td>
</tr>
<tr>
<td>• numbers and mathematical symbols</td>
</tr>
<tr>
<td>• formulae</td>
</tr>
<tr>
<td>• diagrams and maps, graphs, tables</td>
</tr>
<tr>
<td>• texts</td>
</tr>
<tr>
<td>• technology-based displays</td>
</tr>
<tr>
<td>5. Numerate behavior is founded on the activation of several enabling factors and processes:</td>
</tr>
<tr>
<td>• mathematical knowledge and conceptual understanding</td>
</tr>
<tr>
<td>• adaptive reasoning and mathematical problem-solving skills</td>
</tr>
<tr>
<td>• literacy skills</td>
</tr>
<tr>
<td>• beliefs and attitudes</td>
</tr>
<tr>
<td>• numeracy-related practices and experience</td>
</tr>
<tr>
<td>• context/world knowledge</td>
</tr>
</tbody>
</table>
Often, the response of identifying, locating, or accessing information is performed in tandem with one of the other two sets of cognitive strategies, particularly when the purpose of the task is not simply finding or locating information. Once an adult has located information, he may use that information in different ways such as ordering, counting, estimating, computing, measuring, or modeling. For example, once someone finds the price tag on an article of clothing, he will need to decide whether the price is within his budget or may want to add that price to other items to estimate the total cost. Or, once an individual finds how much area a can of paint will cover, he will need to determine the area of the room to be painted and then will have to figure out just how many cans of paint he should buy. In fact, in order to determine the area to be painted, the individual might need to measure the room, then use a formula to determine the area of each wall.

The third group of responses involves interpreting, evaluating/analyzing, and communicating. This group of responses usually is used in connection with at least the first type of response—locate, identify, and access—since clearly an individual has to have information to interpret or communicate. The interpretation may include judging or giving opinions. For example, in a simpler task, an individual might need to locate the scale on a map, then estimate the length of time to get from one place to another. Tasks requiring the interpretation of data from graphs vary in difficulty depending on the type of graph (simple bar graph to very complex graphs illustrating lots of data) and question to be answered (such as how the categories compare vs. what patterns or trends the graph suggests). The response of evaluate and analyze requires interpretation but is based on some criteria or demands. A task requiring evaluation and analysis would be a high-level situation where an individual might review a huge set of data to determine whether the data are valid, or needed for the situation, or include gaps.

This third group of responses also includes communication. Communication could include a description of how one arrived at a conclusion, or a justification of the reasoning used in an analysis or interpretation. Communication can be oral or written; written communication can be through a drawing or graph or map, or even a computer-generated display such as a spreadsheet. A simple task might require someone to draw a picture to represent the total number of bottles stocked on a shelf. A higher-level task might require an individual to give an oral presentation justifying why one situation is better than another.

These three types of responses are usually used in various combinations, depending on the numeracy task at hand. Over time, the teacher needs to pay attention to the types of responses she is asking her students to provide so that they have practice not just with locating or acting upon mathematical information but also with evaluating the information and communicating about it.

**Facet 3: Mathematical Content/information/ideas.** Mathematical information has been classified in different ways. The College and Career Readiness Standards for Adult Education (CCRS) use domains to describe mathematical content. The National Council of Teachers of Mathematics (NCTM) uses five strands: numbers and operations; functions, relations, and algebra; data; geometry; and measurement. In PIAAC, mathematical content and ideas are classified as quantity and number; dimension and shape; data and chance; and patterns, relationships and change. In the table below, you see how these different approaches align.
### Table 3: Mathematical Content

<table>
<thead>
<tr>
<th>Mathematical Content/Information/Ideas Classifications</th>
<th>Description</th>
<th>Sample Types of Tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(NCTM) (CCRS) (domains for K – 8 only)</strong></td>
<td><strong>PIAAC</strong></td>
<td></td>
</tr>
<tr>
<td>Numbers and operations</td>
<td>Number and operations in base ten (K – 5)</td>
<td>Quantity and number</td>
</tr>
<tr>
<td>The number system (6 – 8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number and operations – fractions (3 – 5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ratios and proportional relationships (6 – 7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data</td>
<td>Statistics and probability (6 – 8)</td>
<td>Data and chance</td>
</tr>
<tr>
<td>Measurement</td>
<td>Measurement and data (K – 5)</td>
<td>Dimensions and shape</td>
</tr>
<tr>
<td>Geometry</td>
<td>Geometry (K – 8)</td>
<td></td>
</tr>
<tr>
<td>Functions, relations, and algebra</td>
<td>Operations and algebraic thinking (K – 5)</td>
<td>Patterns, relationships and change</td>
</tr>
<tr>
<td>Expressions and equations (6 – 8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Functions (8)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4 below further details the content specific to the PIAAC framework.

### Table 4: Mathematical content/information/ideas *(adapted from Conceptual Framework, pp. 27 – 28)*

<table>
<thead>
<tr>
<th>Mathematical Content/Information/Ideas</th>
<th>Description</th>
<th>Sample Types of Tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Quantity and number</strong></td>
<td><em>Quantity</em> is using attributes that allow individuals to quantify the world (such as cost, temperature, growth rate). <em>Number</em> is fundamental to quantification: whole numbers; fractions, decimals, percents; positive and negative numbers. In addition to quantification, numbers are used to put things in order and as identifiers (e.g., telephone numbers or zip codes).</td>
<td>A numeracy task with less cognitive demand might be figuring out the cost of one can of soup, given the cost of 4 for $2.00. A task with a higher cognitive demand could involve figuring out the cost when buying 0.28 pound of cheese at $4.95 per pound.</td>
</tr>
<tr>
<td><strong>Dimension and shape</strong></td>
<td><em>Dimension</em> includes ‘big ideas’ about what can be measured in 1-, 2-, and 3-dimensional items, including length, area, and volume. <em>Shape</em> describes real 2- and 3-dimensional images such as a house or sign.</td>
<td>A task with lower cognitive demand could be shape identification. A higher level could involve a description of the change in capacity of an object when one of its dimensions is changed.</td>
</tr>
<tr>
<td><strong>Pattern, relationships, and change</strong></td>
<td><em>Pattern</em> relates to those patterns seen around us (including in music, nature, etc.) <em>Relationship</em> and <em>change</em> refer to how things in the world are related or develop.</td>
<td>A task with lower cognitive demand may ask someone to describe the simple pattern in how bottles are stocked on shelves. A task with a much higher cognitive demand might require the use of spreadsheets to compare rates.</td>
</tr>
<tr>
<td><strong>Data and chance</strong></td>
<td><em>Data</em> involves ideas such as variability, sampling, data collection, etc. <em>Chance</em> relates to probability and relevant statistical methods.</td>
<td>A task with lower cognitive demand might be the interpretation of a simple pie chart. A task with a higher cognitive demand could involve determining the likelihood of an event occurring, based on past information.</td>
</tr>
</tbody>
</table>
In the approach to these content areas, teachers need to be aware of how students might need to use this content. It’s not enough to teach rote procedures in a particular content area; students need to know how they are going to use those procedures in order to accomplish a task. As noted above, at all levels of tasks, individuals are expected to interact with the content. At the most basic level a student learns about quantity and number so he can address a question or situation that has a mathematical component to it. It could be as simple as someone trying to figure out if he has enough money to buy several items. The situation requires the use of quantity and number – a clear purpose within a real-life situation.

**Facet 4: Representations of mathematical information.** Mathematical information can be represented in various formats. We often think of mathematical information being presented as numbers and symbols, including formulae. For example, the idea of five can be represented using the symbol 5, or the Roman numeral V or even four tick marks with a slash mark through them (HHH). Information can be represented by simply using objects to be counted. A simple picture could also be used by an individual to count or address a question. Mathematical information can be represented using visual displays such as charts, graphs, tables, and maps, including technology-based displays. And mathematical information can be represented by text. For example, five is the text version that corresponds to 5 and V.

It is important for teachers to be aware of different representations, so they make sure they include a variety of them as they work with students. They can differentiate tasks in their classroom by varying the type of representation required of students, or that students use in addressing a situation with a mathematical component. For example, teachers might present data in

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**Table 5: Numerate behavior – key facets addressed in a simple task**

<table>
<thead>
<tr>
<th>CONTEXT</th>
<th>RESPONSE</th>
<th>MATHEMATICAL CONTENT/ INFORMATION/ IDEAS</th>
<th>REPRESENTATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surveys are often conducted for work and community; this activity models a very basic survey format.</td>
<td>Students do not have to draw a pie graph; instead they use concrete models made from paper plates to estimate whether each set of responses is more or less than the benchmark 50%; they orally present their results to the class using their benchmark descriptors along with the question and number of yes/no responses.</td>
<td>Data collection and analysis are the main ideas, but benchmark fractions and percents are incorporated so students have examples of how they are used in life; having students create their own question and collect their own data gives them a better understanding of the basics of data collection and analysis.</td>
<td>Students simply use tick marks to tally their responses.</td>
</tr>
</tbody>
</table>
chart form or in a table where students have to extrapolate the necessary information in order to address a task. And, teachers might ask their students to represent the results of their task in a chart or graph or even an equation. Students need to be exposed to these various representations and explicitly taught how to identify and get to the math behind the real-world stimulus.

Table 5 (on page 41) illustrates how all four facts of numerate behavior can be addressed in a single task.

The following questions should guide the teacher as she considers how to integrate all four facets when designing activities/tasks for students to apply their learning.

### Enabling Processes

Along with the four facets of numerate behavior, the PIAAC definition of numeracy includes several enabling processes that adults need to activate (and teachers need to help develop in their students) in order to engage in numerate behaviors. These enabling factors and processes influence the successful completion of numeracy tasks, and this is what starts to make teaching challenging and messy. Naturally some students are better able than others to activate these processes. These processes include context/world knowledge, mathematical knowledge and conceptual understanding, adaptive reasoning and problem-solving skills, beliefs and attitudes,

**Table 6: Facets of numerate behavior – questions to consider**

<table>
<thead>
<tr>
<th>FACETS OF NUMERATE BEHAVIOR</th>
<th>QUESTIONS A TEACHER MIGHT ASK HERSELF</th>
</tr>
</thead>
</table>
| **Context**                 | Is the context meaningful for students?  
Are students familiar with the context?  
Can the actual context be transformed into a more familiar context if working at lower levels? |
| **Responses**               | What are students going to do with the mathematical information?  
What actions do they need to undertake?  
What strategies will they use?  
What cognitive process(es) is/are required to address the situation?  
Is there an opportunity to ask students to communicate something about the information? |
| **Mathematical content/ information/ ideas** | What is the math that students are learning?  
What do students already know?  
How have students shown what they know and understand?  
How can students show that they can apply the math that they are learning? |
| **Representations of mathematical information** | In what format (chart, graph, picture, etc.) is the information needed for the task?  
How difficult is it to locate and identify the math embedded in the materials? |
numeracy-related practices and experiences, and literacy skills. While described individually below, these enabling processes work together as an adult tackles a numeracy task.

**Context/world knowledge.** In order to interpret mathematical information, individuals must have a sense for the context by accessing their world knowledge and personal experiences. For example, being able to think critically about statistical claims about data requires individuals to have the background knowledge and experience to make comparisons. One important and relevant context is the many statistical claims made during election years. Students need to understand what seems reasonable, even making the effort to learn more in order to judge the veracity of the claims.

**Mathematical knowledge and conceptual understanding.** PIAAC refers to conceptual understanding as an integrated and functional grasp of mathematical ideas (*Conceptual Framework*, p. 29). Terms such as *meaning making* and *relationships* are synonymous with conceptual understanding. Without conceptual understanding, adult learners will continue to have to memorize procedures over and over again. Conceptual understanding can help individuals make reasonable estimates and rely more on sense-making rather than rules and procedures. There is no quick way to teach for understanding. Students will need many opportunities to explore and to make connections among math ideas.

**Adaptive reasoning and problem-solving skills.** Adults have a variety of strategies for solving problems - some learned through formal schooling and other developed informally or intuitively over time. Problem-solving strategies may include extracting relevant information from the task; rewriting or restating the task; drawing pictures, diagrams or sketches; guessing and checking; making a table; or generating a concrete model or representation (*Conceptual Framework*, p. 29). The more connections students are able to make among big math ideas, the more they will be able to adapt their reasoning; they will be able to use different strategies to work through situations.

**Beliefs and attitudes.** How an individual responds to a numeracy task depends on attitudes, beliefs, habits of mind, and prior experiences, not just knowledge and skill. The belief that one is not good with numbers, for example, affects how someone reacts to a task involving math. Such negative attitudes and beliefs about numeracy tasks are often exemplified in the adult education classroom. Productive disposition, the “habitual inclination to see mathematics as sensible, useful, and worthwhile, coupled with a belief in diligence and one’s own efficacy” (National Research Council, 2001, p. 116), is key to being able to stick it out long enough to work through a situation involving numerate behavior. In real-life situations, adults with negative attitudes and beliefs about math often try to dodge the task and rely on others, thereby avoiding engagement in mathematical tasks. Addressing adult learners’ attitudes about math to help them build a productive disposition is possibly the greatest challenge for teachers.

**Numeracy-related practices and experiences.** Mathematical knowledge and skills develop through formal schooling and informally throughout life. The frequency with which individuals engage in mathematical tasks also influences numerate behavior. The more often adults engage in numeracy tasks and the more varied the tasks, the more likely their attitudes and beliefs will be affected. These processes are closely intertwined.

This notion of past practices and experiences can
also be another challenging factor to address in adult education. Many adult learners have only been exposed to procedures, and that is what they believe math is: “fractions, decimals, percentages, algebra.” Mathematical knowledge develops both in and out of school. If students are only exposed to procedures without context, chances are that they will not develop a strong mathematical understanding regarding when and where and how to use math in their lives. Adult students may need to have classroom experiences different from what they have had in the past; teachers may need to help students link ‘school math’ with the math they use in everyday life.

**Literacy skills.** One form of mathematical information is text - words rather than symbols or numerals; for example, “Seventy-five percent of the voters…” But, more than just words written in place of numerals, words within a mathematical context can be quite challenging. For example, fifty divided by vs. fifty divided into can stump students, especially if they have not had a great deal of experience with division to draw upon. If students have only been exposed to procedures, and that is what they believe math is: “fractions, decimals, percentages, algebra.” Mathematical knowledge develops both in and out of school. If students are only exposed to procedures without context, chances are that they will not develop a strong mathematical understanding regarding when and where and how to use math in their lives. Adult students may need to have classroom experiences different from what they have had in the past; teachers may need to help students link ‘school math’ with the math they use in everyday life.

**Table 7: Enabling factors addressed in a simple task**

**TASK:** Survey the class on a question that you want to know more about, making sure to ask for yes/no responses only. Create a pie chart representation and explain using benchmark fractions and percents what the results were.

<table>
<thead>
<tr>
<th>CONTEXT/WORLD KNOWLEDGE</th>
<th>MATHEMATICAL KNOWLEDGE AND CONCEPTUAL UNDERSTANDING</th>
<th>ADAPTIVE REASONING AND PROBLEM-SOLVING SKILLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>For this task, most students will have had some experience filling out a survey (even a simple satisfaction survey for a restaurant, etc.). An important element of collecting and analyzing data is to consider the validity of the data; at this level, students can talk about whether the data is representative of the entire adult education program, the entire state, etc.</td>
<td>Students are focusing on pie charts and percentages here, so they need to understand how to find the total and whether one set of responses (yes or no) is equivalent to half the total, or less than or more than the total. At this level, students are not asked to calculate exact percentages since the focus is on the benchmark 50%.</td>
<td>With a small sample, students should be able to add the total number of responses, then figure out what half of the total is (so that they can figure how the two sets of responses compare to the total). For those students who struggle, they may draw a picture, use manipulatives, or even use a calculator to check their reasoning.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BELIEFS AND ATTITUDES</th>
<th>NUMERACY-RELATED PRACTICES AND EXPERIENCES</th>
<th>LITERACY SKILLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Even though many adult learners feel that they are not good at math, participating in tasks such as creating and conducting a survey can feel like a new, ‘non-school-math’ activity, so there is a good chance that students will have a much more positive attitude about getting actively involved.</td>
<td>For those students who have experienced math as mostly procedural, there may be some hesitation in estimating with the size of the two slices of the pie graph using pie plates. Students who think math is only ‘one right answer’ may need lots of experience focusing first on estimation rather than immediately trying to find THE answer.</td>
<td>For this task, students create their own question that they then ask their classmates. The teacher can help with spelling or wording, since the goal is to create a question that can be answered in a yes/no fashion, not whether someone can spell correctly. Students create their own charts and orally explain their results, so few literacy skills are needed here.</td>
</tr>
</tbody>
</table>
to decontextualized division problems that have already been set up for them to compute, their exposure to the words that express the ‘set-up’ of the problem may be limited.

Let’s look at the same task that we discussed with the facets of numeracy to see how the enabling processes can influence how students address the task or activity.

The following questions should guide the teacher as she considers the enabling factors that may help or inhibit her learners as they address the activity/task she has designed for them.

### Table 8: Enabling processes of numerate behavior – questions to consider

<table>
<thead>
<tr>
<th>ENABLING PROCESSES OF NUMERATE BEHAVIOR</th>
<th>QUESTIONS A TEACHER MIGHT ASK HERSELF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Context/world knowledge</td>
<td>What experiences and prior knowledge do students have related to the context?</td>
</tr>
<tr>
<td></td>
<td>Is there something that we need to do in class to familiarize students with the context?</td>
</tr>
<tr>
<td>Mathematical knowledge and conceptual understanding</td>
<td>Do students have the requisite understandings on which to build new understanding?</td>
</tr>
<tr>
<td></td>
<td>Do students really understand the math or do they simply try to follow procedures?</td>
</tr>
<tr>
<td>Adaptive reasoning and problem-solving skills</td>
<td>Do students know how to self-monitor to see if they are on the right track?</td>
</tr>
<tr>
<td></td>
<td>Do students know how to begin to tackle the situation?</td>
</tr>
<tr>
<td>Beliefs and attitudes</td>
<td>How comfortable are students with the math content to be addressed?</td>
</tr>
<tr>
<td></td>
<td>How comfortable are the students with the context?</td>
</tr>
<tr>
<td>Numeracy-related practices and experiences</td>
<td>What kinds of prior experiences have students had with the content?</td>
</tr>
<tr>
<td></td>
<td>How much number sense do students have regarding the content?</td>
</tr>
<tr>
<td>Literacy skills</td>
<td>How much reading is required for the situation?</td>
</tr>
<tr>
<td></td>
<td>What is the level of text complexity?</td>
</tr>
<tr>
<td></td>
<td>How difficult is it to locate and identify the math embedded in the materials? How embedded is the math?</td>
</tr>
<tr>
<td></td>
<td>Is there writing involved? If not, is there a way that it might be included?</td>
</tr>
</tbody>
</table>
Proficiency as a Continuum

In examining the facets of numerate behavior and the related enabling factors, it makes sense that the difficulty of a numeracy task is influenced by changes in both the enabling factors and the facets. Understanding how these influence the difficulty of a task can help teachers figure out how to adjust numeracy tasks based on the needs and abilities of their students. One of the key features of the PIAAC framework is that it is based on the belief that numeracy proficiency runs along a continuum. [This is a very different model from thinking of math as learning discrete sets of skills, such as fractions, decimals, geometry, etc.] The continuum, as used in the PIAAC assessment framework, is based on several criteria, described in PIAAC as factors that affect complexity:

- type of match/problem transparency
- plausibility of distractors
- complexity of mathematical information/data
- type of operation/skill
- expected number of operations

These five complexity factors are intended to take into account all facets of numerate behavior – the variety of contexts, mathematical ideas/content, responses, and representations. The first two aspects of complexity of a task relate to text – how the information is presented. The last three aspects relate specifically to the math operations or activities that an adult has to engage with to accomplish the task; however, the five factors are interconnected. While these complexity factors were used in developing PIAAC assessment tasks, they can also be useful in developing meaningful yet differentiated tasks in the classroom.

Let’s look at each of these complexity factors in more detail.

Type of match/problem transparency. This factor combines two factors related to how straightforward the problem is. Transparency describes the problem itself. It has to do with the explicitness of the information needed to solve a problem. At a lower level, there may be little or no text, and it is obvious what must be done with the information. At higher levels, there could be very dense text from which an adult must extract relevant mathematical information. The concept of type of match has to do with what an individual has to do with the text in order to find the information necessary to solve the problem. For example, a highly transparent problem might require a person to simply locate information in a text. A less transparent problem might require the person to search several pieces of information in order to extract the information necessary to address the task. A simple set of examples to illustrate this involves the task of comparing data.

Ex. 1: Based on the GED® test data in 2001, the median score for test takers in math was 475. In 2003, it was 470 and in 2010 it was 469. What is the difference between the highest and lowest median score for those three years?

Ex. 2: Review the GED® test data from 1999 – 2010 to determine which year test takers had the highest median score in math.

In the first example, the data are provided, but not in the second example. An individual would have to search through several years of reports to find the data needed for the situation.

Plausibility of distractors. Easy tasks would involve using text that has just the right amount of information. Many typical word problems that give just enough information would be considered simple. Moving toward the complex end of the spectrum would be tasks that include a lot of information that has to be read to find the relevant information and sometimes may not even include relevant information such as a formula needed to address the problem.
Consider these two simple examples to illustrate the complexity factor related to distractors:

Ex 1: According to the bus schedule, John can catch it at 6:33 p.m. for a 7:45 p.m. arrival downtown. How long will his ride be?

Ex 2: Use the bus schedule to determine which bus to take to be sure to arrive downtown before 8:00 p.m.

In the first example, the information is straightforward; the beginning and ending times are given so the student does not have to look for the information. In the second example, the information is imbedded in the schedule. The times are not provided so the student has to use the bus schedule to locate the necessary information.

**Complexity of mathematical information/data.** This complexity factor looks at the range from concrete to more abstract mathematical information, such as counting the number of items in each box vs. analyzing a complex graph or applying a detailed formula. Imagine two different bar graphs, both depicting the number of errors made per day. In the first graph, there are three simple bars, each representing only the total number of errors for the day. In the second graph, the number of errors is broken down by shift in a series of stacked bars.

Complexity also ranges from the familiar to the unfamiliar. The more familiar the context in which the mathematical information is presented, the easier the task. Tasks that are situated in an unfamiliar context can ratchet up the complexity level, even if the numbers themselves are not too challenging.

Students who have only been exposed to the typical bar graphs where each bar represents only one category will find this second graph challenging. The bars are more challenging to read, and the graph type itself may be unfamiliar.

**Type of operation/skill.** Clearly a mathematical situation involving addition and subtraction of whole numbers is much simpler than one requiring dividing fractions. An example of varying complexity based on type of operation or skill is determining simple vs. compound interest. The compound interest formula \( A = P(1 + r/n)^n \) requires an understanding of exponents and the graph of the situation is exponential. Even though this might be the most obvious way to vary difficulty, it is important to vary the difficulty of a task by considering other complexity factors as well.
**Expected number of operations.** Tasks that involve one step are considered less complex than those involving more than one step. We all have seen students who stop working on a problem after they have completed the first of a series of steps. It seems that the more steps there are, the more likely students are to get lost in the process. Here are two simple examples to show the difference in complexity.

Ex. 1: A coat that regularly costs $456 is on sale for 25% off. How much would you save by buying it at the sale price?

Ex. 2: A coat that regularly costs $456 is on sale for 25% off. What is the sale price?

In the first example, an individual only needs to calculate the amount saved. In the second example, there could be a second step required – to figure out the new price once the amount saved based on sale is determined. Or, an individual could first determine the percent of the regular price (100% - 25%), then determine the new price. But, in either case, the second example requires two steps.

Understanding how to change a task to make it more challenging or more accessible will help teachers develop activities that are meaningful to all learners, yet move them all along the continuum from novice to expert. It does take time, but with practice, teachers can develop a sense of how to efficiently adjust tasks for her students.

<table>
<thead>
<tr>
<th>SIMPLE TASKS</th>
<th>MOVING ALONG THE CONTINUUM</th>
<th>COMPLEX TASKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>• explicit information</td>
<td>• information becomes less obvious</td>
<td>• information hidden, challenging to sort through</td>
</tr>
<tr>
<td>• no distractors</td>
<td>• distractors begin to appear in the information</td>
<td>• lots of distractors</td>
</tr>
<tr>
<td>• concrete information (actual or visual)</td>
<td>• mathematical ideas and content become more challenging</td>
<td>• abstract information or presentation of material</td>
</tr>
<tr>
<td>• whole numbers and benchmark fractions, decimals, percents</td>
<td>• multi-steps are needed to address the situation</td>
<td>• complex mathematical information</td>
</tr>
<tr>
<td>• one operation (+, -, x, ÷)</td>
<td></td>
<td>• multiple operations</td>
</tr>
</tbody>
</table>
The following questions should guide the teacher as she considers how to tweak a task to address the various needs of her learners.

### Table 9: Complexity factors – questions to consider

<table>
<thead>
<tr>
<th>COMPLEXITY FACTORS</th>
<th>QUESTIONS A TEACHER MIGHT ASK HERSELF</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type of match/problem transparency</strong></td>
<td>Is the needed information explicit or hidden?</td>
</tr>
<tr>
<td></td>
<td>Will the student need to search through the information several times in order to access everything that is needed to address the situation?</td>
</tr>
<tr>
<td><strong>Plausibility of distractors</strong></td>
<td>Are there any distractors? If so, do they get in the way of easily deciding what information is needed?</td>
</tr>
<tr>
<td><strong>Complexity of mathematical information/data</strong></td>
<td>How is the information presented – is it concrete or visual so that the information can be readily counted, or is it very abstract such as a decontextualized equation?</td>
</tr>
<tr>
<td></td>
<td>How are the quantities represented – whole numbers vs. fractions vs. decimals, for example?</td>
</tr>
<tr>
<td><strong>Type of operation/skill</strong></td>
<td>Are students already familiar with the operation? Do they know the relationship between and among operations so that they can add up for a subtraction operation, for example?</td>
</tr>
<tr>
<td></td>
<td>How ‘friendly’ are the numbers? (For example, does the task require a comparison of two ratios such as $2/3 = 6/\square$ vs. $2/3 = 5/\square$?)</td>
</tr>
<tr>
<td><strong>Expected number of operations</strong></td>
<td>How many operations will be required for the situation?</td>
</tr>
</tbody>
</table>
Putting It All Together

Let’s revisit the four examples of analyzing nutritional labels at the beginning of this article. We should now be able to better articulate what factors made each of the tasks easier or more challenging, providing several tasks so that students at various levels could all participate in classroom discussions about nutrition, but then tackle a task that was appropriate for their particular needs.

<table>
<thead>
<tr>
<th><strong>Table 10: Similar but different tasks - analyzed</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TASK 1</strong>: Amy can only eat 10 g. of sugar per day. If she eats one serving of this cereal, how many more grams of sugar can she have during the rest of the day?</td>
</tr>
<tr>
<td>The original label had lots of information. It was removed so that the necessary information was readily available for the student; in other words, there are no distractors. This task requires only one operation – subtraction (or adding up from 4 to 10), so overall this is a low-level task.</td>
</tr>
<tr>
<td><strong>TASK 2</strong>: Compare the nutritional information of the cereal below with the cereal you usually buy. Create a chart showing how the two compare, then be prepared to explain which cereal is the healthier choice for your specific needs.</td>
</tr>
<tr>
<td>This task requires that a student go find other nutritional information to compare with what is given; this in itself makes the task more challenging. The student will have to compare much of the nutritional information in order to make a decision that she can then reasonably justify, so the task requires more than just finding and comparing nutritional information. This is higher level task.</td>
</tr>
<tr>
<td><strong>TASK 3</strong>: Amy’s doctor has told her that she needs to reduce her calorie intake down to 1500 per day. If she eats a serving of this cereal, explain what percent of her daily calorie intake she has consumed.</td>
</tr>
<tr>
<td>This has been made into a very challenging problem because the calorie intake was reduced by 25%, making calculations more complex. The students have to read the label carefully to understand that the data are based on 2,000-calorie diet, not 1,500. This ratchets up the level of the task.</td>
</tr>
<tr>
<td><strong>TASK 4</strong>: Amy can only eat 10 g. of sugar per day. If she eats one serving of this cereal, how many more grams of sugar can she have during the rest of the day?</td>
</tr>
<tr>
<td>This task is exactly the same as the first example. What makes this just a little more challenging is that there are distractors – other nutritional information that could get in the way of the student figuring out exactly what information is needed for the situation. This is a fairly low level task based on the math required, but higher than the first task since there is additional information imbedded in the task.</td>
</tr>
</tbody>
</table>
So far, we have discussed several key elements of the PIAAC assessment framework, including facets of numerate behavior, enabling processes that support such behavior, and complexity factors that determine the difficulty of the task requiring numerate behavior. While we have discussed these in isolation, they are all integrated and interdependent.

Let’s look at how they can influence each other with a couple of specific examples.

Table 11: Decontextualized problems vs. real-life tasks

<table>
<thead>
<tr>
<th>A REAL-LIFE TASK INVOLVING FRACTIONS</th>
<th>FACETS OF NUMERATE BEHAVIOR</th>
<th>ENABLING PROCESSES TO SUPPORT NUMERATE BEHAVIOR</th>
<th>COMPLEXITY FACTORS THAT DETERMINE THE DIFFICULTY OF THE TASK</th>
</tr>
</thead>
</table>
| You work the late shift at Getz Bakery and need to prepare a report of what is sold at the end of each day. On Monday 1/3 of the slices of cake were sold. On Tuesday, ½ of what was left was sold. What portion of the original cake would you report was sold on Tuesday? | Context: could be work or adults’ personal lives
Responses: act upon
Mathematical content/ information/ ideas: number sense - fractions
Representations of mathematical information: includes text and a picture | Mathematical knowledge and conceptual understanding: requires an understanding of what happens when a fraction of a fraction is taken
Adaptive reasoning and problem-solving: students might choose a variety of strategies as they work through the situation. Many may try different operations (adding, subtracting, multiplying, dividing) but should be able to reason whether the result makes sense; drawing a picture to visualize this situation could be beneficial to make sense of the situation
Literacy skills: some skill needed, although fractions are in symbols and numbers
Context/world knowledge: most students probably know that cakes are sliced into equal parts
Beliefs and attitudes: for adult learners to succeed with this task, they need to believe that they can work with fractions
Numeracy-related practices and experiences: learners will tend to perform some operation, possibly depending on their memory of fraction procedures | Problem transparency: mathematical information is obvious
Plausibility of distractors: none
Complexity of mathematical information/ data: somewhat abstract but object is familiar
Type of operation/skill: challenging for most adult learners because it involves multiplying fractions
Number of operations: requires more than one operation |

A typical decontextualized fraction problem: \( \frac{1}{2} (1 - \frac{1}{3}) = x \)
While there are several components to the PIAAC assessment framework, in this article we have focused mainly on the critical component of numeracy as use-oriented and numeracy along a continuum. The definitions of numeracy and numerate behavior illustrate the concept of ‘use-oriented’. Teachers adopting PIAAC’s use-oriented definition of numeracy are more likely to realize that teaching discrete, decontextualized skills is not benefiting their students. Students need to be able to apply their skills in increasingly challenging situations in order to effectively manage their lives, whether it is at work, home, in further schooling, or in the community. Teachers who understand the PIAAC numeracy framework components will be able to adjust instruction to ensure that all their students are challenged to continue to move along the continuum of what it means to be numerate.

### Table 11: Decontextualized problems vs. real-life tasks (continued from previous page)

<table>
<thead>
<tr>
<th>A REAL-LIFE TASK THAT INVOLVES ALGEBRAIC REASONING</th>
<th>FACETS OF NUMERATE BEHAVIOR</th>
<th>ENABLING PROCESSES TO SUPPORT NUMERATE BEHAVIOR</th>
<th>COMPLEXITY FACTORS THAT DETERMINE THE DIFFICULTY OF THE TASK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lavonne’s granddaughter wants to go to the community fair. There are two prices for tickets: either an individual pays $20 entrance fee and then pays only $1 per ride, or the individual pays no entrance fee but has to pay $4 per ride. How can Lavone explain in a graph and an equation the options based on the number of rides her granddaughter thinks she might want to go on?</td>
<td>Context: adults’ personal lives Responses: interpret, evaluate, analyze, communicate Mathematical content/information/ideas: Patterns, relationships and change Representations of mathematical information: needed information is presented in text; but individual will represent the solution graphically and symbolically</td>
<td>Mathematical knowledge and conceptual understanding: requires an understanding of variables and operations Adaptive reasoning and problem-solving: Students could use concrete manipulatives to support their reasoning Literacy skills: some skill needed, especially understanding terms such as ‘per’ Context/world knowledge: understanding that there are situations in which you pay up front to enter an environment even if you don't participate in activities Beliefs and attitudes: because this situation is grounded in a real-life experience, students are more likely to try to work through the problem than they would if they only had the original problem; many students fear algebra Numeracy-related practices and experiences: depending on adult learners’ experiences, they may initially tackle this situation by creating two tables to compare the two options as the number of rides increases</td>
<td>Problem transparency: mathematical information is obvious but it needs to be separated into two different options Plausibility of distractors: none Complexity of mathematical information/data: money is familiar to students and amounts are in whole numbers Type of operation/skill: what makes this task more challenging is that students are asked to create equations; if they only had to use a table of other strategy, this would have been considered an easier task Number of operations: more than one operation and a comparison of two situations</td>
</tr>
</tbody>
</table>

A typical decontextualized algebra problem: $x + 20 = 4x$
References


Why White Instructors Should Explore Their White Racial Identity

Stephen D. Brookfield, University of St. Thomas

Why should white instructors in multiracial ABE classrooms explore their own whiteness? If racial identity is largely a cultural, not biological, construct, then why focus on any form of racial markers? Doesn’t this constant harping on race create unnecessary divisions and stop us all from getting along? Well, it’s not talking about race that disrupts social harmony; it’s the fact that whiteness as an identity is connected to power, particularly to the way that a learned blindness to racial inequality helps maintain a system that exhibits structural exclusion and normalizes brutality.

Whiteness buttresses power in a taken for granted, unnoticed way. As George Yancy (2018) writes, this is because racism is not the process of individually demeaning or diminishing others, “a site of individual acts of meanness” (p. 74); rather, it’s being “implicated in a complex web of racist power relationships … heteronomous webs of white practices to which you, as a white, are linked both as a beneficiary and as co-contributor to such practices” (Yancy, 2018, p. 75). Since my whiteness constantly benefits me, and since that benefit accrues to me because we’re defined in relation to the supposed “stigma” of blackness, I am racist. I don’t go about hurling racial epithets, but I am “embedded in a pre-existing social matrix of white power” (Yancy, 2018, p. 76) that gives me advantages of which I have only an occasional awareness. To feel safe is my norm, to be “systemically racially marked for death” (Yancy, 2018, p. 102) is Yancy’s.

I have been struck over the years by the fact that people of color tell me that the most helpful thing whites can do in terms of fighting racism is to become aware of what it means to be white. They say it’s much more important for whites to learn that they have a particular racial identity, and to examine how that identity operates in the world, than it is for them to learn about the cultures of racial minorities. Yet in a multiracial classroom, it seems to me that culturally responsive teaching that varies instructional modalities to take account of say, collective modes of generating knowledge, is crucial.

I guess the point of focusing on white identity and white ways of knowing is to stop universalizing white experience as the norm for all humanity. It helps us realize that what appear to us as common-sense approaches to teaching are racially and culturally constructed. For example, the emphasis on individual, not group, assessment reflects the dominance of a Eurocentric paradigm that privileges individualism and self-determination as the natural end point of human development. Realizing that individualism is a
core element of white epistemology helps open us up to more collaborative, group-based forms of assessment. In tribal, indigenous and Afrocentric culture it is the collective that validates knowledge and takes the responsibility for moving knowledge forward.

In trying to engage the fact of whiteness and the reality of a white racial identity we are, of course, engaged in a contradiction. If one of the most cited indicators of white identity is being unable to see that whiteness constitutes a racial marker, then how can a white person possibly become aware of his or her own racial being and think she can teach other whites about it? Don’t we need scholars of color to write from a different racial perspective that throws whiteness into sharp relief?

I argue that it’s a question of both-and. When people of color highlight elements of whiteness we learn more of how white supremacy operates to circumscribe and devalue lives in a world where whiteness is the norm around which institutions are organized. On the other hand, when whites examine whiteness together, they learn how these norms are transmitted amongst themselves, how challenges to these norms are deflected, and how groupthink operates to stop efforts to identify what whiteness means.

**Color Blindness**

A recent anthology on teaching race (Brookfield, 2019) identifies the enduring permanence of the colorblind perspective amongst whites. A colorblind view of the world appeals to many whites for its seeming emphasis on the universal aspect of humanity shared by all people. It is a conscious adoption of Dr. Martin Luther King’s dictum that we should judge people not by the color of their skin but by the content of their character. Whites are often very supportive of this view, professing that they take people as they come, give everyone the benefit of the doubt, and then make individual judgments about people that are unaffected by race as they interact with them in particular settings.

Why should color blindness be a problem? Isn’t it an anti-racist orientation to say you avoid stereotypes and put biases aside so you can focus instead on the unique humanity of each individual you encounter in your life? Well, if this were truly what was happening, then I would be overjoyed. But the colorblind perspective has two major flaws. First, it implies that whites can indeed quickly put biases aside and see people in an un-raced way. Second, it assumes a level playing field is in place in which whites interact with people of color as moral and political equals.

Let’s take the issue of being able to detach yourself from a race-based view of the world. My position is that the ideology of white supremacy is so all enveloping that only hermits permanently cut off from all human interaction and all media could escape its influence. So, despite whites saying that they see only people, not color, I don’t believe this to be true. To take myself as an example, I have been socialized in a world in which white supremacy underscores how people think and how institutions function. Even though I have spent decades trying to uncover this ideology in myself and to identify racism in the contexts through which I move, I am still held somewhat hostage to my white supremacist conditioning. I hope I get better at detecting its influence and in calling it out when I see it in play. But its frame will never leave me, and I come smack up against it every day of my life.

Now let’s think about the fact that racial exchanges don’t happen in a flat, neutral terrain. Even if I could remove all biases, stereotypes and
prejudices from my mental frameworks I would still be moving through an asymmetrical world. Access to jobs, health care and education are so disproportionately advantaged in favor of whites that the “breaking news” cable TV headline that I see every day really should read “revolution still not broken out.” There is clear racial segregation in housing and even in “integrated” public schools a color line clearly exists. Incarceration rates for black and brown people are astoundingly disproportionate, and the last few years have highlighted regular shootings of black males by white police. Add to this the demonization of black and brown immigrants as disease-ridden terrorists, rapists, and hardened gang criminals, and it seems impossible for whites not to realize they live in a deeply racist world in which whites are disproportionately advantaged.

When whites say to people of color that they don’t see race, they come across as naïve in a world where institutions and systems are structured around seeing color and ensuring, in particular, the continued dominance of one racial group. I work for a predominantly white institution that proclaims the worth of every person’s dignity, and I’m happy to aspire to that value. But I have also pointed out to those institutions that because of the white supremacy embedded in the way they function, the dignity of institutional members of color can only be enacted if there are radical structural changes in admissions, financial aid, assessment systems, governance, curricula and performance appraisal.

I believe that well-intentioned whites telling students of color that they don’t see race, and thinking that means that they can then be trusted, is one of the worst mistakes well-intentioned whites can make. This is because, to most people of color, everything is seen through the lens of race. As a white person you may feel the world is unraced, but you should assume that a person of color sees it in exactly opposite terms. One of the dynamics I’ve often observed in multiracial conversations is whites saying that they’re non-racist and then expecting people of color to take them at their word and to trust them to act accordingly. Personally, I never expect to be trusted by colleagues of color just because I write books, give presentations, and teach courses around racial issues. I always counsel those whites I work with not to get hung up on assessing how much they are trusted by folks of color. I believe they should have as their starting point an expectation of not being trusted. If somewhere down the line a person of color tells you they trust you, then accept that as a recognition of your good work. But don’t think you’re not being effective if that acknowledgment never comes.

Whiteness Is Not a Racial Identity

When I ask white people about the moment when they first become aware of their white identity I am often met with bemusement. Equally, the questions ‘what does it mean to be white?’ or ‘what role does your whiteness play in your life?’ are viewed almost as nonsensical. This is because many whites don’t believe they have a racial identity and that whether or not they are white has absolutely nothing to do with where they are in life, or how they conduct themselves.

The belief that whiteness does not constitute a racial identity is a building block of white normativity; the idea that the norms and standards by which we judge what is acceptable and normal in the world are colored white. And it’s something that whites don’t usually think about unless, like the white mothers of children of color who must navigate norms of whiteness (Chandler, 2016), something in your experience requires you to do so. Under white normativity
race is something exhibited only by those with skin not colored white. Whiteness has become viewed as the universal standard, the de-facto center, the common-sense way the universe should look when it’s working as normal. Under white supremacy leadership looks white, authority looks white, experts look white and what counts as legitimate knowledge is constructed by whites. The power of white supremacy is that this situation is not understood as being constructed to advantage a dominant racial group. Instead it is viewed as unremarkable, obviously correct, and just the way things are.

If you accept this perspective on life, then race is not something you need to attend to. If being white means you don’t have a race, then it’s easy to compartmentalize any discussion of race as something appropriate only for people of color. In this way it’s quite possible to attend a training on diversity, inclusion or cultural competence, without ever really thinking about what it means to be white. Race is always seen something that others have, and those “others” typically have black, brown, red and yellow skin.

One of the consequences of thinking you don’t have a racial identity is concluding that you don’t really need to participate in conversations about race, unless you know you’re going to be working with people from different racial backgrounds. If you spend your life in predominantly white environments surrounded by people who look like you, then it’s not surprising that you’d think that race is something “out there,” evident in neighborhoods you don’t frequent, streets you don’t walk on, and company you don’t keep.

**Opting In and Out of Race**

Whites who don’t believe themselves to be raced and who live mostly in white environments can in effect decide when to opt in or out of thinking about, or dealing with, race. This is a luxury denied people of color who have to navigate a white world for chunks of every day. For me the problem of race is a white problem. White racist structures, policies and practices continue to endure partly because whites don’t see how those structures are maintained to disadvantage people of color. The race “problem” is obviously a problem of the systematic marginalization and diminishment of people of color, but it’s just as much a problem of how good white people (Sullivan, 2014), who consider themselves to be moved by morality and compassion, don’t see how white supremacy keeps racism in place.

Thinking that you can move in and out of dealing with race is a reflection of the individualistic, Horatio Alger mythology so much a part of American culture. It’s easy to push thinking about race to the corners of your world if you think that being racist is all a matter of individual choice. Unless you put structural racism at the center of your analysis you can view racism as a matter of personal conduct, of whether or not you have bad thoughts, say bad things, and treat people unfairly.

Thinking that you’re a moral, compassionate person and that racism is all a matter of individual choice means that you can think you have an anti-racist identity without doing any collective organizing or cooperation. This is why helping people to think structurally, not individualistically, is so crucial. But in an individualistic culture that routinely celebrates individuals who overcome the odds it’s also extremely difficult to foster a whole new way of thinking. To adapt two well-known slogans, a structural perspective holds that the personal is structural and that we should think locally and act structurally.
If students of color see everything through the lens of race then it behooves a white teacher like myself to explore what it means to experience the world as profoundly racialized. I can’t do this by trying to mentally project myself into another person’s racial identity. I can’t do it by identifying times I’ve felt excluded and devalued and then trying to link them to experiences of racial marginalization. No, the only way I can experience the world as racialized is by doing a deep dive into my own racial identity and understanding how that benefits me in a racially asymmetrical world. This is why white instructors need to explore their own whiteness.

References


“Race”ing White Instructors: Beyond the Black-White Binary

Edith Gnanadass, University of Memphis

With the rise of overt racism, xenophobia, nationalism, homophobia, transphobia, and religious discrimination accompanied by attacks against women’s rights in the United States and other parts of the globe, Brookfield’s “Why White Instructors Should Explore their White Racial Identity” is a needed contribution to ABE. He shows how white normativity and the ensuing universalizing of the white experience promotes and sustains white supremacy, and thereby, structural racism. Brookfield uses Yancy’s (2018) argument to show how whites are complicit with structural racism by stating that “it’s a fact that whiteness as an identity is connected to power, particularly to the way that a learned blindness to racial inequality helps maintain a system that exhibits structural exclusion and normalizes brutality.” Brookfield’s analysis using race and structural racism clearly shows how whites as a group benefit from white supremacy by being “embedded in a pre-existing social matrix of white power” and how that confers privileges on the group as a whole. This, in turn, Brookfield contends has led to the idea of whiteness, the white experience being the norm, and the belief that white is not a racial identity. He argues that whites are raced and that race is a white problem, not just a problem for people of color, thus calling on white instructors to reflect on their racial identity to be better teachers and help students learn.

With this in mind, I found Brookfield’s analysis and call for action a persuasive intervention; however, I would like to problematize and broaden his decontextualized, essentializing, and binary theorization and stated practices of whiteness by suggesting that we go beyond a binary conception of race by adding an intersectional analysis (Berger & Guidroz, 2009; Crenshaw, 1990) that includes race, social class, gender, nationality, and citizenship. Otherwise, we as ABE researchers and practitioners, will once again default to centering whiteness and the white experience while pushing all other racial identities and experiences to the margins and reducing racial relations and racism to the “white-and” binary paradigm of race. As Brookfield acknowledges in his paper, he speaks from a place of white male privilege, and based on this privilege and his experiences, there is both an essentializing of race and whiteness and binary perception of race, both of which stem from a particular cultural-historical perspective.

I want to start by situating myself and providing readers context about my perspective. First, I am an adult educator with a multiplicity of identities: Indian woman, Malaysian, postcolonial feminist, professor, American, Christian, etc. Second, I racially identify as South Asian American. “As a South Asian American, I am not white, but
neither am I historically and culturally black” (Gnanadass, 2016, p. 2), so I do not see myself in the black-white binary paradigm of race. Finally, this critique is crafted from a U.S.-centric perspective on race.

Keeping this in mind, I critique Brookfield’s conceptualization by going beyond his call for reflection on whiteness. Brookfield highlights the hegemony of the white experience as the norm and the power and privilege that this entails. This unquestioned normativity of the white experience which he defines as “the idea that the norms and standards by which we judge what is acceptable and normal in the world are colored white,” privileges white ways of knowing and teaching in the classroom. This translates to ABE as the privileging and conceptualization of literacy as a decontextualized set of portable skills (St. Clair & Belzer, 2010), in other words, school literacy, and the dismissal of other literacies and ways of knowing. When instructors subscribe to this autonomous perspective of literacy (Street, 1984a, 2006), they do not view literacy as embedded in the socio-cultural context of people’s lives. Therefore, literacy instruction is not contextualized or individualized so that learners can interact with text and make meaning of it based on their social context and social interactions (St. Clair & Belzer, 2010; Street, 1984b). According to the Division of Adult Education and Literacy, 1.5 million learners are enrolled in publicly funded ABE programs, the majority, 74%, are not white (U.S. Department of Education, 2018, p. 3). Thus, the white standard and white ways of knowing and meaning making will be an anomaly, not a norm for this majority. As such, Brookfield’s call for white instructors to see themselves as raced and pushing back on the idea of white not being a race is needed.

The byproduct of white normativity is the belief that white is not a racial identity and that race is only applicable to people of color. Or as Brookfield points out, “Race is always seen as something that others have, and those ‘others’ typically have black, brown, red and yellow skin.” This belief by white instructors can cause harm to ABE students who are predominantly people of color (U.S. Department of Education, 2018). In program year 2015-2016, 44% of adult learners identified as Hispanic or Latino, 20% as Black or African American, 9% as Asian and 1% as American Indian or Alaska Native (U.S. Department of Education, 2018, p. 3). So if white instructors believe that only non-whites have a race and they are the standard who are unnamed and raceless, whether intentionally or unintentionally, there is a danger in them seeing their students not as individuals who have particular goals and needs, but solely as “others” belonging to other racial groups. This could lead to stereotyping, ascribing qualities to learners based on their appearance, and treating them as objects who are viewed as “other” or different. Thus Brookfield’s position that white is a racial identity and whites have a race as well is a necessary intervention.

Recognition and acceptance by white instructors that they too have a racial identity, albeit one with perceived power, privilege, and benefits that is a product of history and culture in white-supremacist-capitalist-patriarchy (hooks, 2014), which shapes their social interactions, including their teaching and relationships with students, is a crucial first step in acknowledging and valuing their multiracial students.

However, in the multiracial landscape of ABE, I suggest it would be helpful to extend and complicate Brookfield’s sole focus on the white racial identity and whiteness, which can be perceived as essentialist and reductionist to an intersectional analysis that minimally takes into
account race, social class, gender, nationality, and citizenship status. Brookfield by focusing solely on race and basing his analysis on his experience as a privileged white male, is assuming that all whites have or share his experience. Therefore, they need to do what he is trying to do to confront accrued privileges and benefits from white supremacist structures. Furthermore, this conceptualization of whiteness and the white experience implies that white is a homogeneous category. As we know, whiteness is complicated and raises the question of who is white or who is seen as white? Is whiteness defined by skin color only? And who gets to define this category of whiteness? Is white an identity or an identification? In writing this response, I am not trying to deny and minimize the existence of white privilege. I acknowledge that whiteness is imbued with power and privilege, but I also want to emphasize that white experience is not a universal or generalized experience. With this in mind, white ABE instructors are not just white. In other words, they are not solely constituted by race. They are gendered, classed, and have a multiplicity of identities that go beyond race. To illustrate, a white instructor could be a cisgender woman, mother, adult educator, working class, first generation college graduate, a lesbian, an immigrant, and so forth, and identifying her as just white or asking her to identify herself as white, might be doing symbolic violence to her idea of self. Furthermore, in ESL classrooms, nationality and citizenship status play an important role. We have many instances in which ESL students might “look” white and not identify as such or might not appear as white in the United States conceptualization and every day deployment of race but might identify themselves as white, and instructors need to acknowledge their identification, culture and history in meeting student needs and goals and curriculum development.

I appreciate Brookfield’s acknowledged positionality as a white male and his transparency that he is writing from his positionality with its partial perspective (Haraway, 1988). However, from his vantage point as a white male, his conceptualization of race relations is binary at times, an assumption that race relations are only between white and black people or between white and people of color, which erases other identities and racisms. This is much like the black-white paradigm of race (Perea, 1998; Westmoreland, 2013) in which there are primarily two groups in the United States, black and white. Hence, race relations are conceived as the relationship between these two groups, and racism is reduced to anti-black racism which results in the obscuring of all other racisms. Before I proceed, I want to situate this discussion in the racist context of the United States with its history of genocide, slavery, segregation, incarceration, and exclusionary immigration laws and recognize that the pain and suffering of that history still lives in the present. Thus, the focus on anti-black racism is important and relevant to this discussion on white instructors, but we need to make sure that this does not make invisible the other racial groups or force all other racial groups to identify themselves in these binary categories. In ESL and other ABE classrooms, there is a diversity of nationalities, races, ethnicities, and social classes. Therefore, viewing these learners through a black-white binary strips them of their agency by naming them, imposing particular cultural-historical identities on them, robbing them of their rich national and cultural histories, and dismissing racisms against them in order to make them fit into our U.S.-centric perspectives on race.

We are all constituted by a multiplicity of identities; we are not one or the other; we are all “and” identities. Although some identities might
be more salient at times, we are not just one identity all the time. As Crenshaw (1990) argues, a black woman is not just black or just a woman, she is both, an intersectional identity constituted by race and gender. Likewise, white instructors are not just white instructors, they are constituted by multiple, intersecting identities. This not an argument to minimize white supremacy or its effects, but to complicate the conceptualization of race presented in Brookfield’s paper with an intersectional approach in white-supremacist-capitalist-patriarchy (hooks, 2014).

References


Response to Stephen D. Brookfield's *Why White Instructors Should Explore Their White Racial Identity*

Shantih E. Clemans, SUNY Empire State College

In principle, I agree with Stephen Brookfield’s strong assertion that white teachers need to carefully explore what it means to be white. However, I have two primary points of departure. First, Brookfield falls short in offering practical guidance to support the imperative of white-exploration. While I see the importance of white people embarking on self-exploration, I have more practical concerns. Specifically, how, when and why explorations connected to racial identity occur are the more pressing considerations for the flame of change to ignite in the hearts, minds and practices of teachers (and in all of us, frankly).

Second, Brookfield claims that we need to reject a “color blind view of the world for its seeming emphasis on the universal aspect of humanity.” He also suggests that whiteness can be separated out from other aspects of human identity. On the contrary, I see the more chances we take to learn from each other - teacher, student, black, brown, white (and all) - the more seeds of empathy are planted, the more commonalities we recognize in each other. Rather than something to critique, humanness is actually a doorway in, a tool to unlock the gnarly puzzle of privilege and power. In college-readiness programs and community-based GED centers, one small way white-dominated conceptualizations of humanness can be redirected is through the creation of learning activities that are rooted in personal experiences connected to race, such as pair interviewing exercises, reflective journals, and autobiographies (Clemans, 2017). “Many teachers include activities that engage students in sharing their experiences and finding their commonalities—not just personal characteristics such as how many sisters they have, but talking about how an issue touches their daily lives” (Nash, 2019, p. 64). I maintain that only through curiosity, genuine care, openness, and listening to people’s life experiences (really listening from their perspective) can whiteness (and blackness, femaleness, and queerness for that matter) be brought into sharp focus.

**Practice Considerations**

Brookfield’s claims are fast and furious. Maybe too fast. Personal exploration on whiteness is a complex undertaking with delicate practice considerations, specifically: context, timing, audience, visibility, and purpose.

Let’s begin with context. Under what conditions and circumstances are these explorations in white racial identity occurring? Is the setting a public
library with a summer class for new immigrants learning English? Is the teacher preparing to facilitate a discussion on race and power in America? Or is it a pre-college math class? I’d argue that it matters.

Next is the important consideration of timing. When are or when should explorations about one’s whiteness happen? For example, does a white teacher jump right in on day one of the workshop series and say, “I’m white and this is what it means.” Or, do the results of this exploration happen after the students and teacher have established a routine, where certain expectations for learning, even a fledging trust, have developed? If we are considering whiteness in an ongoing workshop, self-awareness around racial identity needs to be a theme woven throughout the weeks of the training.

What about the audience? For example, what are the reflections on whiteness teachers have with themselves? Meaningful mechanisms are necessary to guide and support internal reflections about one’s racial identity and the power connected to one’s identity. External audience also needs consideration. For example, after some version of internal reflection and self-examination, what are the next steps?

What are the aspects of self-awareness a teacher keeps private and what is shared with colleagues as a way to learn together? Adult educators of all backgrounds need opportunities to talk about race in a nonjudgmental space. Are there people or groups who should be excluded from these reflective explorations? What are the learning moments connected to whiteness that a white teacher decides to have with white and of-color co-workers, with students, community members, or other program stakeholders? Are there “safe spaces” where teachers can honestly share what is on their minds and in their hearts connected to race without fear of judgment?

Finally, perhaps the biggest question: purpose. What is the ultimate point of self-exploration connected to white racial identity? Does such learning improve students’ literacy? What are specific examples of self-exploration for white teachers? Beyond theoretical, what would a day-to-day reflection around race look like in practice for an ABE instructor? For example, is it a journal project? Is it a book discussion group?

**Humanness**

I have thought deeply about my whiteness, sometimes as a separate part of me and, more often, as one piece of me that makes up my human tapestry. I enter this conversation as a white woman, a lesbian, a feminist, a social worker, partner, parent, faculty mentor, community educator, and a director of a center focused on mentoring, teaching, and learning. My first eye-opening awareness of white privilege, how I smoothly navigate my world, came after reading Peggy McIntosh’s “Unpacking the Invisible Knapsack.” Which, to my mind, is the original and most powerful work to date on the subject of whiteness. (Brookfield would have done well to acknowledge McIntosh’s seminal work.) In her “Some Notes for Facilitators,” McIntosh (2010) encourages educators to take a broad view: “Recognize that all people are both located in systems and also uniquely individual” (p. 5).

My most profound learning around racial identity continues to unfold, expand, surprise, and challenge me through my teaching and mentoring adult students. Adult learners are a vast population—college-bound, college-enrolled, in GED programs, with many hopes and aspirations for skill development and lifelong learning.
Moreover, I have also worked with community-based organizations to facilitate workshops connected to race and culture for a broad range of participants, including correction officers, childcare workers, and substance abuse counselors in training. In these settings, I have often been one of a few white people in the room. I have wondered if I may have a little glimpse of what African American and black learners feel every day. I now realize I cannot make any such claim. No matter if I am “the only” one, I still have the freedom, as Brookfield observes, to “opt in and out of race.”

Although I was keenly aware of my own whiteness in such teaching encounters, I lacked the language or confidence to openly acknowledge my white privilege. Over time, my relationships with my students and my commitment to authentic teaching deepened, and I slowly recognized mistakes that come from honestly embarking on “tough” human conversations.

Focus on the Individual

I question Brookfield’s claim that “in tribal, indigenous and Afrocentric culture it is the collective that validates knowledge and take responsibility for moving knowledge forward.” These sweeping generalizations about vast populations of people across the world do nothing to add depth or nuance to cultural experiences in learning. I challenge Brookfield’s assertion that individual rather than group assessment reinforces white supremacy. In our racist American culture, are not group assessment processes influenced by the same systems of white supremacy as other educational systems? Doesn’t Brookfield’s claim that, “because of the white supremacy embedded in the way they function, the dignity of individual members of color can only be enacted if there are radical structure changes in admissions, financial aid, assessment systems, governance, curricula and performance appraisal” negate current collective strategies for assessment? How overwhelming! We need to embrace small steps to honor the dignity of our students and teachers of color.

On Trust

Brookfield also asserts that trust is not something we can assume in our relationships with colleagues of color. I would argue not for instant (superficial) trust, but rather for the acknowledgement of a certain process connected to teachers learning self-awareness around whiteness, as a precursor to trust. I firmly believe that trust develops through a teacher taking an interest in students’ lives: learning about passions, dreams, joyous and painful life experiences, a desire to learn to read and write English. Although individual attention to students is essential, groups, specifically in-person classes, are especially powerful modalities to learn together about racial identities and other parts of what makes us human.

On Love and Learning: Reflections of a White Professor ‘Teaching’ Black Adult Students

To understand and attend to whiteness as connected more broadly to teachers’ identity, is an ongoing commitment for me. In my 2017 essay, “On Love and Learning: Reflections of a White Professor ‘Teaching’ Black Adult Students,” I wrote on my experiences and reflections during a semester of teaching Cultural Competency to a group of mostly black and African American adult college students. My essay was about my internal process, which was bumpy, beautiful and powerful. The heart of the essay was my teaching journal entries combined with my students’ journal entries. Here’s what I wrote in the conclusion:

Talking across difference can be fraught with danger. There is no returning to the blind comfort, the reassurance that everything will be OK, or the notion that “I am white but I am not like those
other white people.” A subject as complex as culture, as divisive as race and racism, is not a cursory exercise, not a semester-long undertaking earning one a badge of “competent.” For both student and teacher, cultural competency begins as a long, slow and conscious process of understanding oneself and then another person from that person’s viewpoint, perspective, history and circumstance (p. 21).

I urge us as teachers to begin with an open-hearted commitment to humanness. Do white educators learn, really learn, about the lives, experiences, hopes and challenges of their students of color?

Fear and Defensiveness

Honest conversations about whiteness, privilege, discrimination and race are painful, fraught, and crucial. There is a chance that once a white person feels defensive and challenged in discussions about power, race and privilege, this person may be less likely to venture into future conversations out of fear of making a mistake or saying something wrong or feeling attacked or vulnerable.

One reading I have used in various settings is Peggy McIntosh’s “Unpacking the Invisible Knapsack.” To be honest, probably out of a combination of fear and defensiveness, I have worried about the usefulness of this reading. I have convinced myself that black and African American learners do not actually need a lesson on white privilege. With more thought, I realized I was protecting myself from facilitating a difficult conversation where my feet would feel unstable under me. I also realized I didn’t want to go there, to have my whiteness so exposed to my students. I don’t think my experiences are unusual. Uncertainty, fear, flushed face and cracking voice were all necessary for me to speak honestly about myself, my privilege, and to listen and learn from my students.

Still, something nags at me about the entire process of exploring one’s whiteness. I see a tension between white self-exploration on race with the purpose to strengthen teaching and white exploration on race as yet another manifestation of unchecked white domination. In other words, when does a white person’s explorations on whiteness actually contribute to, rather than shine light on the very systematic supremacy we are trying to eliminate? It is dangerous when explorations on whiteness, to return to Brookfield, “help maintain a system that exhibits structural exclusion and normalizes brutality.”

Teacher Development

Brookfield makes a case that the real work happens internally for white teachers when they take time, store up a certain kind of courage, take stock of themselves before embarking on sharing with students. Schools and community-based organizations are well situated to create a menu of workshop activities and offerings connected to privilege, power and identity. With skilled facilitators in place, these workshops need to be flexible and relevant to particular teachers and students, for example a session on cultural reflection for ABE teachers would be a welcome addition. Educators benefit from ongoing professional development opportunities, both mandatory and optional, that support, challenge, and strengthen mutual learning about our lives. Our diverse adult learners deserve our care and attentiveness to ourselves and them.
References


Response to Edith Gnanadass and Shantih E. Clemans

Stephen D. Brookfield, University of St. Thomas

I want to thank my two colleagues for engaging so passionately and accurately with my work, and for problematizing all the omissions and blindnesses I carry. Their critiques are spot on and add nuance and context to a “fast and furious” analysis! As a 70-year old who is currently battling his employer for his speaking out on institutional racism, I am aware that my time for action is limited. The perception of time slipping away certainly fuels a tendency to strip things down to essentials. So I love how these two critiques illustrate why questions of identity are best addressed in conversations between those representing as much intersectionality as can be arranged. One of my core beliefs as a teacher is that introducing the question of race in a predominantly white institution (and indeed in any context) is best accomplished by a multiracial teaching team. That’s pretty much the only way that all the complexities of racial identity can be addressed. And the context within which whiteness is named and critiqued is so crucial. Although my piece contains some broad strokes advice, I am quite prepared to reverse or contradict these if something about the situation requires me to experiment radically with methodology.

But, of course, as Edith Gnanadass so pertinently points out, a full explanation of structural inequities requires the permanent reality of intersectionality to be centered; otherwise “we as ABE researchers and practitioners, will once again default to centering whiteness and the white experience while pushing all other racial identities and experiences to the margins and reducing racial relations and racism to the “white-and” binary paradigm of race.” In fact, one of the ways that white supremacy maintains its power is by creating such a binary. The central idea of white supremacy is that only whiteness confers superior reasoning ability and calm, logical analysis, and that’s why whites should always be in the position of making decisions for the rest of the collective. Once that essentializing idea is challenged, decentered and displaced, then the structures based upon on it start to seem less automatically legitimate.

Both Edith Gnanadass and Shantih Clemans point out my tendency to speak in broad brush strokes as I essentialize the notion of whiteness. I love this correction. In a fully realized analysis, intersectional identities would be at the center of conversation. In the predominantly white contexts in which I work, getting people to even acknowledge whiteness as a category of racial identity is the hardest part of my work. So a pretty unremitting focus on whiteness as a category is needed if anyone is going to even consider the possibility that they have any kind of racial identity.
The audiences I spend most of my time working with are teachers from across the disciplines in different 2- and 4-year colleges. Usually I’m asked to speak on diversity or inclusion, which is usually framed by the institution as widening access to bring more bodies of color on campus. Whilst I agree that this is obviously crucial, my concern is that when students, faculty and staff of color arrive in a white racialized environment, they experience the marginalization and alienation so well described in Feagin’s (2013) white racial frame. Denying the reality of white supremacy and perpetuating the myth that we are all good white people (Sullivan, 2014) who don’t see color and treat everyone the same, is a typical way that predominantly white institutions address racist incidents on campus. If anyone is interested to read my analysis of how institutions manage diversity so as to avoid focusing on institutional racism fuelled by white supremacy they can find it at Brookfield (2018).

In my own case, I am a white educator who has been asked to get white instructors to acknowledge (a) that they have a racial identity and (b) that this identity is highly significant in framing how they teach and talk to students of different identities, how they define problematic behaviour in students, and how they assess what counts as legitimate learning. I usually begin this kind of staff and professional development by conducting a *sliDo* poll inviting people to register how they feel as they enter the event. A large number of attendees typically check the boxes I create that state that they are “sick of white bashing” and “resent being forced to spend too much time being made to focus on a manufactured problem that doesn’t really exist in a post-racial world.” I’ll also typically have postings praising President Trump on the anonymous backchannelchat.com page I create for the event.

I have found that the most effective first step in getting a white audience like this to admit that there might actually be something worth listening to, is through narrative disclosure. Ideally, this would be done by a panel of white instructors from the institution who would talk in the way Shantih Clemans does so engagingly about the “bumpy, beautiful and powerful” journey of recognizing their white racial identities. If a panel like this is unavailable then there’s no other option for me but to talk about my own experiences (Brookfield, 2015).

Space doesn’t really permit me to go into much detail on questions of methodology that Shantih Clemans so rightly calls for, but if any readers are interested in exploring how I go about teaching race, my book *Teaching Race: Helping Students Unmask and Challenge Racism* (2019) focuses exclusively on practical strategies and approaches to this work.
References


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Faculty of adult and continuing education (ACE), take notice: there’s a new textbook in town. While there are plenty of textbooks for graduate students on adult education, adult learning, and continuing education theory and practice, the new *Foundations of Adult and Continuing Education* by Ross-Gordon, Rose, and Kasworm (2017) takes a slightly different tack. The authors have designed it as a textbook about the field of adult education as a profession. Their purpose is to acquaint “practitioners and emerging scholars alike with the historical and contemporary context of the field and its place in society” (p. vii). Rather than start with adult learning theories, the book’s first four (out of 12) chapters focus instead on contemporary definitions, forms, and types of adult education; the changing nature of participation and participants in ACE; the development and role of an adult educator as a teacher, administrator, mentor, and professional in the field; and the ACE profession and field, historically, present-day, and trends for the future. Since the book’s focus is adult education in the United States, it may be most useful for those graduate students who intend to work in the United States while still providing background on the field for those whose goal is to work in the adult education profession in other countries.

The middle third of the book focuses on the traditional “foundations” of the field: philosophy in relation to adult education; a history of formal (higher education), non-formal, vocational, social justice, and basic or literacy education for adult students in the United States; the adult learner and perspectives on learning, such as andragogy, self-directed learning, transformational, cognition, spiritual, and critical reflection; and the role of policies and politics in ACE. Of particular value to new graduate students is the chapter on philosophy, which defines (rather than assuming knowledge of) key terms about...
knowledge, including ontology, epistemology, and phenomenology, and various philosophical orientations in relation to adult education, such as idealism, realism, pragmatism, existentialism, and postmodernism. In fact, most of this chapter would be useful to any beginning-level graduate student in education or the social sciences.

The final third of the book then steps into specific contexts related to adult and continuing education in the United States. One chapter focuses on technology as a tool for and in adult education, with a short discussion of technology, neuroscience and adult learning, and a longer section on designing ACE programs that effectively integrate technology. Another chapter focuses on the variety of targeted opportunities for populations of adult learners through instruction at work, post-secondary institutions, literacy and English language programs, and the military. The following chapter continues this thread but focused on adult education delivery through faith-based, cultural, health-oriented, democratic and community development, social change, and social justice orientations and purposes. Finally, the book ends with a chapter on trends, recent changes, and future directions for adult education, including adult learner cognition, motivation and participation; diversity; technology; quality and standards; and lifelong learning. While it refers to and summarizes issues discussed in the previous chapters, it could also serve as an introductory chapter to key issues in the field during an adult education graduate course.

As the authors note, although the book uses the term “foundations” in its title, this book is better described as a look at philosophy, history, psychology, and policy as “frameworks for understanding the purpose and structure of adult and continuing education” (p. 384). Either way, the book is comprehensive, well-organized, up-to-date, easy to read, and rich in its discussions of theory and practice, past and present, abstract and concrete. The middle section, particularly the two chapters on (1) philosophy and (2) the adult learner, could easily be used separately in a graduate class on adult learning theory and practice that might draw students from any field that provides information or educational services to improve adults’ health, legal, financial, or technology literacy. Used in its entirety, it would serve as a thorough and broad introduction to the field, its research, its profession, and its learners in the United States. I heartily recommend this book as a primary text for introductory adult and continuing education graduate courses, either face-to-face or online, especially for programs where students see themselves as future policymakers or administrators.

Review of The Open Door Collective: The Workforce Basic Skills Resources Collection

Johan E. Uvin, Institute for Educational Leadership

The Open Door Collective (ODC) is a membership-driven, web-based resource portal for professionals in adult education, social services, and poverty reduction who have expertise in connecting adult basic skills education to employment and training, health care, and family and social services. Practitioners are the primary audience with researchers and policy makers being the secondary audience. This review will first provide an overall description and review of this portal, before exploring in depth an example of a resource found in the ODC.

Why Does It Exist?

**ODC’s mission** is to help adult basic skills advocates create common cause with advocates for other issues (health, employment, incarceration, libraries, etc.) in order to build an integrated approach to ending poverty. Under the motto of “Opening the Door to Opportunity for Everyone,” the ODC is dedicated to reshaping U.S. society to have dramatically less poverty and economic inequality and more civic engagement and participation in all our society has to offer. Members of the ODC believe that adult basic skills education and lifelong learning programs can help open the doors of opportunity for everyone to healthier, more prosperous and satisfying lives and are committed to building an economic and political environment that supports innovative policies, programs and investment for developing the basic skills of all adults. The website includes a transparent statement of beliefs that illustrate this overall commitment.

Who Leads It?

The work of the ODC is overseen by a Steering Committee that consist of seven leading practitioners, policy makers, and researchers in the field of adult learning: John Comings, Eric Nesheim, Margaret Peterson, Steve Reder, David Rosen, Jen Vanek, and Gwenn Weaver.
What Does It Do?

**Advocacy Issues Groups**

The ODC operates nine advocacy issues groups, which are the engines of ODC’s efforts. These groups produce advocacy papers, presentations, and videos that set out the common cause within each ODC issue group. The issue groups are: Affordable Housing; Labor and Workforce Development; Public Libraries and Adult Basic Skills; Digital Inclusion; Health and ABE; Safety Net Services Advocacy; Criminal Justice Reform; Immigrant and Refugee Education and Integration; and Public K-12 Education and Intergenerational Literacy.

**Resources**

The website includes different types of resources.

- Newsletters. There is a seasonal newsletter of which three issues have been published and posted to date. The newsletter provides updates on key activities of the ODC.
- Papers. The second type of resources is the collection of ODC papers. Each of the papers provides the reader with a quick overview of what the current challenges and opportunities are and provide useful concrete examples of practices and policies the paper intends to promote as solutions to the issue. The papers cover a broad range of issues including: crimmigration (criminal justice-immigration), the role of basic skills in workplace advancement, the relationship between basic skills and public safety net, health, and incarceration, as well as critical cross-sectoral partnerships between adult basic education and health organizations, public libraries, and immigrant integration organizations.
- Topical Resource Collections. The third type of resources are topical resource collections.

There are four resource collections: Immigrant and Refugee Integration Resources, Criminal Justice and Adult Education Resources, Health Literacy in ABE Resources, and Workforce Basic Skills Resources. Each of these four resource collections presents content that was selected and curated, when necessary, by members of the associated ODC Issues Group.

**What Do the Topical Resource Collections Offer? An Example: Workforce Basic Skills Resources**

The Workforce Basic Skills Resources collection has two main parts to it: “Can-Do” Guides for Stakeholders and An Archive of Work-Related Basic Skills. The ODC Labor and Workforce Development Issues Group is developing a series of “Can-Do” Guides aimed at various stakeholders (e.g., employers, labor unions, prisoner re-entry agencies, universities, and others). Each guide explains why adult basic skills are important for the individuals with whom that stakeholder works (e.g., employees, union members, former inmates) and how that stakeholder can work with adult basic education providers to strengthen and expand basic skills development services in their community and state. The guides are based on experience and research in collaborative efforts with various stakeholder groups. Four guides have been produced to date:

- What Forward-Thinking Employers Can Do to Strengthen the Basic Skills of Our Workforce
- What Labor Educators Can Do to Strengthen the Basic Skills of Our Workforce
- What Re-Entry Services Can Do to Strengthen the Basic Skills of Former Inmates
- What Universities Can Do to Strengthen U.S. Adult Basic Skills Efforts
An Archive of Work-Related Basic Skills Resources is a 38-page annotated mix of approximately 125 recent and not-so-recent resource materials related to work-related adult education. Dr. Paul Jurmo created the archive and organized the resources around 10 topical areas:

- Work-Readiness, College Transition, and Career Pathways for Job Seekers: Program Models and Practices;
- Work-Readiness for Particular Industries;
- Workplace Education for Incumbent Workers: Program Models and Practices;
- Tools for Assessing Worker Basic Skills;
- Tools for Program Planning and Evaluation;
- Work-Related Basic Education in the U.S.: Local, State, and National Policy;
- Interpretations of How to Make Workplace Education Relevant and Effective;
- Employer Perspectives;
- Labor Union Perspectives; and
- International Perspectives.

The purpose of the archive is to bring together in one place select work-related basic skills resources that have influenced worker education over the last 30-40 years. Objectives include informing newcomers to the field as well as those who have been in the field. The intended audience is broad and varied and includes teachers/facilitators, program designers and administrators, curriculum developers, federal, state, and local policy makers, researchers and evaluators, and critical partners in business, labor, and industry about basic skills education at and for work. The scope of the archive is broad and comprehensive including resources with hands-on design, implementation, teaching, and evaluation ideas, sector-based curriculum resources, policy and system resources, research and evaluation documents, descriptions of pertinent discussion groups, learning communities and communities of practice, links to journals, trade publications, and various newsletters, and so forth.

The author’s perspective is best described in two ways. First, the reader/user should be aware that Jurmo is an advocate for worker-centered and participatory education. His views align with those of the ODC Issues Group that views “worker basic education as a tool to help workers attain, perform, and advance in family-sustaining employment” (OCD, 2019). Second, Jurmo believes that it is important to not just include resources that reflect worker-centered approaches but to give an overview of the different approaches and philosophies about how to approach the skills development of adult workers. As the website states, “[…] while most of these resources support a “contextualized” approach to work-related basic education, they are not unanimous in the particular contextualized applications they focus on nor in how they develop and run their programs” (OCD, 2019).

What Specific Resources Are Included? Two Examples

To illustrate the nature of the resources included in the archives, below are two examples. One example is a recent resource. The second example is an older resource. The examples were chosen because they speak to the way that work-related basic skills issues have evolved from a program paradigm to a career pathway programs and systems paradigm. The first example provides a state-of-the-art view of research, policy, and practice issues in career pathways today. The second example looks at the specific role career awareness can and needs to play in the ABE and ESOL classroom. It is a very practical illustration of a practice that learners need and want but programs, on average, do not tend to provide.
FIRST EXAMPLE

Special Issue on Career Pathways (COABE Journal, 2018). This special issue of the journal of the Coalition on Adult and Basic Education contains 13 articles on various aspects of adult education’s role in career pathway initiatives. As for purpose, the articles together provide a 360-degree view of the history and current state-of-the-art in adult career pathways with a welcome emphasis on the perspective of the adult learning field. The objective of this special issue is to inform practitioners, policy makers, and funders with an interest in adult career pathway programs and systems with articles that focus on research, practice, and technology. In addition, six articles are grouped as a Forum discussion and highlight gaps in current practice (e.g., career awareness) and feature emerging, promising practices (e.g., guided pathways). The perspectives of the authors reflect a deep interest in, expertise with, and commitment to advancing the spread of career pathway programs, practices, and systems.

Given the central role of career pathways in the Workforce Innovation and Opportunities Act and the Strengthening Career and Technical Education for the 21st Century Act, these perspectives are useful for anyone, from the classroom to the board room. The articles taken together provide newcomers to career pathways with historical context, a sense of current strengths and challenges in practice, research, and policy, and a preview of the emerging innovations in programming, policy, and funding. The ideas developed in each of the articles are articulated well, are adequately developed, and grounded in the relevant evidence base for the topics addressed. The layout is inviting and style and register of the articles are appropriate for both an expert and layperson audience, as the language is clear, accessible and straightforward.

It would be valuable to have this resource featured in the archive as one of the top most recent resources for anyone with an interest in how career pathway programs and systems can change the odds for adult learners and create a pathway to economic mobility and prosperity.

SECOND EXAMPLE

Integrating Career Awareness into the ABE & ESOL Classroom: Curriculum Guide (National College Transition Network, and Massachusetts System for Adult Basic Education Support, 2009). The purpose of this resource is to provide information and guidance on how to integrate career awareness in the ABE and ESOL classrooms. The objective is to help adult education teachers and counselors guide adult learners through a comprehensive career planning process that promotes a full range of life skills. The scope of the resource is similar to what is typically found in curriculum guides. The guide begins with a three-page “How to Use this Guide.” The curriculum is divided into four sections: cultural context for career awareness; self-exploration (skills, values, experience, interests, education); occupational exploration (occupational and job profiles, informational interviews, career and job fairs, and labor market information); and career and education planning (decision making, goal setting, college success skills, and action planning). Each section is divided into lessons. Each lesson outlines the topic learning objectives, materials needed, vocabulary, and extension activities. The Curriculum Guide provides adequate guidance while allowing flexibility to adapt to one’s context. For instance, the guide includes handouts that practitioners can use as they are or modify them to meet the needs of their classrooms. The perspective of the authors reflects a learner-centered approach.
This resource successfully accomplishes its objective of guiding teachers and counselors through a curriculum that allows adult learners to experience a comprehensive career planning process that promotes a full range of life skills. The materials and activities reflect that the authors are knowledgeable about issues of career awareness, career exploration, and career planning. The Curriculum Guide is presented in a highly accessible style. Navigating the guide is easy and intuitive.

This resource makes a significant contribution to theory, research, or practice in adult basic education and literacy. As indicated in the review of the first example (i.e., the Special Issue of the COABE Journal featuring career pathways), career awareness, exploration, and goal setting are the missing link in adult education practice. This resource shows practitioners in a hands-on manner how to bridge that gap in their own classrooms and counseling practices. The ODC should actively promote this resource so that more practitioners can integrate these much-needed services into their programs and practices.

**How Useful Is It? A Critical Evaluation**

The archive succeeds at its objectives of informing a broad audience including newcomers and more seasoned professionals in the field of work-related basic skills practice and policy. The archive has over 125 resources presented in an appropriate style and format for the intended audiences. The number of resources, however, can feel overwhelming at first and finding one’s way through the resources can be challenging. While resources are grouped in 10 categories, organization can be improved. The challenge is not that the presentation of the resources is not clear. The challenge is that, with the exception of the 10 broad categories, the reader/user – particularly the newcomer user – is not offered much navigation or resource evaluation assistance.

All the intended audiences stand to benefit greatly from the resources included in the archive. The resources – depending on the roles, experience, goals, and needs of the audience – can be useful in instruction, curriculum development, program design, policy development and systems reform, and research and evaluation design. The greatest contribution the archive makes to theory, research, or practice in work-related adult basic education and literacy is that it is a single stop, “go-to” collection of past and current resources for work-related basic skills issues with direct links to most resources so that the user in two clicks can get to the specific information he or she needs.

It is important for the reader/user to be aware that this archive brings together resources that reflect different approaches and philosophies about how to approach the skills development of adult workers. The user should be mindful of the fact that the resources include both resources that reflect ODC’s advocacy for worker-centered education that views “worker basic education as a tool to help workers attain, perform, and advance in family-sustaining employment” (OCD, 2019) and resources that reflect different perspectives and approaches that are less worker-centered. One consideration for future revisions to the archive is to indicate which resources feature worker-centered approaches and practices and which ones do not.

**What Are the Main Takeaways about the ODC?**

The ODC is a much-needed and growing “go-to place” for advocates, practitioners, researchers, and policy makers who want to work on and advocate for adult learner issues using a cross-
sectoral approach. As more members join and contribute resources, the ODC will continue – and needs - to evolve so that the resource collections, the ODC papers, and the newsletters will increase both in quantity and relevance. As the Steering Committee provides oversight, greater congruity between the various approaches used by the Issues Groups in designing their collections and addressing the variability in the extent to which content is evaluated and curated will enhance both the usefulness, attractiveness, and the navigation and use of the resources and the site.

References
Few traits are as desirable as creativity. In fact, according to chief executives around the world, creativity is the most sought-after trait in leaders. Yet creativity is also one of the most elusive concepts (Csikszentmihalyi, 1996). There is no shortage of definitions. Some define creativity as novelty, effectiveness, ethicality (e.g., Cropley, 2001). Others characterize creativity as a psychological trait that produces high quality, novel, useful work appropriate to an audience (e.g., Sternberg, Lubert, Kaufman, & Pretz, 2005). Others argue creativity is a confluence of personality traits, alternative ways of thinking and knowing, and a mixture of social and environmental influences (e.g., Kerka, 1999).

Teaching for creativity has been an increasing area of focus in children’s education but has largely been ignored within adult education. Jeffrey and Craft (2001) note the distinction between teaching creatively and teaching for creativity but go on to state that both aspects are important. Indeed, many argue that creativity is essential to human existence (e.g., Jeffrey & Craft, 2001). With so many differing beliefs, the starting point for literacy education instructors who wish to cultivate creativity in their adult basic education, GED, or ESL classrooms is to first believe they can. In an era where the notion that schools “kill creativity” (Robinson, 2006) and society has suppressed the creative potential of adults by encouraging intellectual conformity (Sternberg, 2017), instructors need to provide opportunities and encouragement to make creativity a habit and attitude adults possess for life. This article is an attempt to share with educators what researchers have found regarding the hallmarks of creativity. It also provides a sampling of proven techniques and approaches instructors can use in educational settings to help adult learners unlock and develop their creativity.

The Status of Creativity Research

In 1949, when J. P. Guilford gave his seminal Presidential Address to the American Psychological Association, he made a bold declaration: it was time to make creativity the center of psychological research (Guildford, 1950). As a result, 20,000 papers and 21,000 books now exist on creativity (Kaufman & Gregoire, 2015). Most of the published theories of creativity lie outside the field of education in the areas of the arts, engineering, business, and psychology (Patston, 2017).

During the 1950s, creativity largely became associated with divergent thinking—a thinking process that highlights the ability to come up with many potential answers or solutions as opposed
to convergent thinking—arriving at one correct answer. Much of the creativity research has focused on children. Yet several adult educators have sought to promote creativity in adult education (Edelson, 1999; Esslinger, 2011; Galbraith & Jones, 2003; Hickson & Housley, 1997; Hoggan, Lones, 2000; Kerka, 1999; Knox, 2011; Simpson, & Stuckey, 2009; Tsai, 2012, 2013a, 2013b). A growing number of adult educators have investigated the role of the arts in adult education (Armstrong, 2005; Butterwick & Dawson, 2006; Clover, 2006; Clover & Stalker 2007; Lawrence, 2005; Merriweather, 2011; Olson, 2005; Sullivan, 2005).

Overall, though, very few studies have focused specifically on adults and creativity (Butler, 1967; Haanstra, 1999; Nemec & Sullivan-Soydan, 2009). In fact, Tsai (2013a) conducted a keyword search of adult education journals over a 20-year period and discovered only 18 articles. He identified six topic areas within those articles: (a) creative expression for health (Bennetts, 2004; Cueva, Kuhnley, & Cueva, 2012; Noble, 2005; Stuckey, 2009); (b) communication and creativity (Clover, 2006; Grace & Wells, 2007); (c) creative learning (Clark, 2001); (d) creativity in lifelong learning (Dovey & Muller, 2011; Su, 2009); (e) creative expression in transformative learning (Luckie, 2005); and (6) creativity in adult education (Beckett, 2001; Clover, 2003; Edelson, 1999; Edelson & Malone, 1999; Haanstra, 1999; Walshok, 1999).

Furthermore, Tsai’s (2013b) review of the topic “creativity in older adults in journals,” an inquiry that looked at 30 years worth of journal articles revealed only seven articles (13%) were from the field of adult education. Therefore, if we want to cultivate creativity in adult literacy education settings, it requires us to look both within and beyond the field of adult education. It requires us, like the very act of being creative, to engage in qualities of originality, curiosity, risk taking, and a willingness to accept the idea there is not always a single correct solution.

**Hallmarks of the Creative Mind: What Creative People Do Differently**

To consider how to promote creativity, it is useful to know what creative people do differently. Kaufman and Gregoire (2015) analyzed over 100 years of scientific research and extracted 10 common themes of what highly creative people do differently. Their exploration revealed a series of paradoxes. Creative minds engage in mindfulness and the mind wandering of daydreaming. Creative people are characterized by openness yet also sensitivity. Collaboration is valued yet so is solitude. Play is emphasized along with seriousness and turning adversity into advantage. Intuition rules paradoxically so does reason. According to Kaufman and Gregoire (2015), creative people have messy minds and messy processes.

Kaufman & Gregoire’s (2015) review found several elements promote creativity. Encouraging risk taking and originality by giving people the autonomy to decide for themselves how they will learn and create is a key element for promoting creativity. Daydreaming, personal time for reflection, and methods to promote inner exploration were all elements found to nurture creativity. A third component that aids building creativity is helping people find and grow their unique purpose and identity by making activities meaningful and directly linked to their personal goals. To encourage creativity, it is beneficial to focus on confidence building to increase how individuals learn new information and cope with adversity. Making tasks more conducive to flow by engaging learners in appropriate levels of challenge and helping them to develop supportive and positive social relations were all seen as elements to cultivate creativity.
How to Cultivate Creativity

How can literacy educators help their learners cultivate creativity in educational settings? What practices, habits, and strategies might help learners become more creative?

Lean on proven enhancements for creativity.
Knox (2011) advocates for learning activities that use methods from the following six enhancements of creativity: setting aside time for solitude, supporting learners by suspending frequent and unnecessary criticism, building on sufficient preparation, interacting and sharing experiences, encouraging divergence to explore unusual directions, and building public understanding of the reasons for creativity. These types of activities include: learning in groups, writing creatively, role-playing, problem-based learning, and one-minute papers (Nilson, 2010).

Ask for feedback. One of the quickest strategies instructors can use to encourage creativity are 1-minute papers. One-minute papers are writing prompts that solicit feedback and gauge students’ interest, relevance, analysis, and conceptual connections. Examples of 1-minute prompts include: “What interesting questions remain unanswered about today’s topic? What idea expressed in today’s class affected or influenced your personal opinions, viewpoints, or values? What did we discuss in class today that connects with what you are learning or have learned in other courses?” (Cuseo, 2019). Underlying the 1-minute technique is the broader recognition that stopping at the beginning, middle, or end of the class to ask a fresh series of questions, often results in novel, transformative insights.

Conduct better brainstorming. One of the most cited creativity development techniques is brainstorming. However, many brainstorming sessions resemble wading through mud—an energy zapping, uninspired trek. Gregersen (2018) suggests focusing on questions not answers for breakthrough insights. Inspired by Palmer’s (2017) work on making creative discoveries through open, honest inquiry, Gregersen developed a brainstorming process he calls a “question burst.” In this exercise, set a timer for 4 minutes, aim to generate 15 questions, and do this for at least three rounds. All variety of questions are welcome. However, Gregersen found descriptive questions (e.g., What’s working? What’s not? Why?) better precede speculative ones (e.g., What if? What might be? Why not?).

Alternatively, instructors can engage their students in “brainswarming” (also called “brainwriting”) whereby learners work initially in silence and write their contributions on sticky notes they place on the board. Brainswarming contributes to cultivating creativity by allowing people to work side-by-side to produce ideas faster. Working in silence means the most talkative in the group cannot dominate the session. Fear of judgment is reduced, and silence allows people to move between thinking, writing, moving, and reading others’ contributions to build off one another’s ideas, which can lead to more novel contributions (McCaffrey & Pearson, 2019).

Focusing on generating new questions for a problem, rather than answers encourages dynamics that build creativity. For instance, unlike in traditional brainstorming, rather than engaging in convergent thinking and rushing to provide an answer, learners depart from their usual habits of thinking. Since people can only contribute questions, this recasts the problem in innovative ways and allows learners to have a sense of control. They are not trying to think up an answer rather they are thinking down questions, which allows them to push past myopic thinking, closure phenomenon, and blaze a new trail.
Think differently. For instructors who have never used creativity training or creative learning exercises before, one way to get started is to take learners through an activity that shows the difference between convergent and divergent thinking. Renzulli (2017) outlines an example whereby instructors begin by asking a question that has one correct answer (e.g., Who was the first President of the United States?). Instructors can follow-up by asking, “Are there any other answers to this question?” After getting a consensus there are not, instructors continue by asking a question with divergent answers (e.g., What are all the ways you might have come to class tonight?). Renzulli recommends using a list of general questions such as those developed by Arnold (1962) to spur learners’ creative thinking (e.g., Modification: What new twist can you make? Substitution: What can you use instead? Minification: Suppose you could change your size or shape. How then might you have gotten to class?).

Integrate the arts. Since some of the first scholars arguing for creativity in the classroom were arts educators, arts-based learning activities are another way to promote creativity and imagination. Merriweather (2011) recommends using Spoken Word, a poetry-based art form that through its use of engagement, imaginative learning, authenticity, and the practice of democratic ideals embodies key elements of adult education such as meaning-making, transformation, and critical reflection.

Riley (2016) advocates for arts integration in adult math education classes (GED and ESL) to enhance creativity. For example, to encompass a math standard such as “add and subtract within 20” and the art standard “use observation and investigation to make a work of art,” instructors might have learners create buildings with the same number of total rooms, yet different sizes and configurations.

We tend to believe that original thinking is rare. However, all of these techniques demonstrate learners are capable of being true innovators. Educators can set learners up for success by building a culture of creativity. Cultivating creativity begins with not only the ability to learn and memorize and arrive at correct answers (convergent thinking) but also the ability to move beyond habitual ways of thinking and knowing to imagine potentialities and possibilities that expand beyond what has been dreamed of before (divergent thinking). But it does not end there. To maintain a culture of creativity, educators need to keep fighting the pressures against it. For creativity to flourish, learners must feel encouraged to take grand risks, pitch their wildest ideas, and champion ways that show nothing is impossible for even the word says, “I’m possible.” This is literally the kind of thinking that has enabled people to change the world. It is the type of thinking that will enable learners to change their world.
References


Description of the Challenge

Blended learning is the integration of online learning with face-to-face learning. It is not just adding technology, or even adding online learning technology, to face-to-face learning, which is sometimes referred to as hybrid learning; true blended learning requires integrating face-to-face learning with online learning. Many adult basic skills programs have considered offering blended learning, and some have been trying to do it but have found that they need help with planning and program development.

Possible Solutions

In this column, I will emphasize that although choosing the right hardware and software may be important, program planning is the place to start, and I will offer two resources, available free online, that may help you anticipate and solve problems in program design for blended learning.

It’s a good idea, when making a major program-wide change to create a planning team, because then the implementation is more likely to meet everyone’s needs: adult learners’, teachers’, tutors’ and program administrators’ needs.

Assuming your team wants to begin to offer or to improve blended learning, team members could begin by asking and answering these questions:

1. What are the teaching/learning problem(s) we are trying to solve with blended learning?

2. Why do we think blended learning will help us solve those problems?

3. Is this for some, or all, of the classes in our program? What drives this decision and how might it inform our future implementation of blended learning?

4. What are the content areas and levels of content we need in the online learning component?
5. Do we want to obtain, or possibly purchase, a new online learning management system (LMS) or content management system (CMS), or do we plan to use an existing one?

6. Do we want the online content to be provided for us, or do we want to use a free or inexpensive Learning Management System (LMS) and find or create all our own content, or a mixture of both?

7. Do we want a feature that reports learning progress and, if so, what student learning progress information, or other kinds of information would we like it to report?

Someone on the planning team needs to take notes. If you plan a program-wide solution, circulate the notes to all your colleagues to collect their additional questions, and for clarification and refinement of answers. The team may decide that no one knows the answers to some questions, for example questions 5, 6, or 7 above, and that more information is needed, such as what the pros and cons are of these choices.

If you decide you want to purchase an online CMS, and you know what content area(s) and level(s) you need, you will find a list of some major adult basic skills education publishers that may have Content Management System products of interest at http://bit.ly/30gmBg4. If you want to find or create your own content and store it for adult learners in a free or low-cost online file storage system, you will also find in that same document lists of these storage systems and free or Open Education Resources (OER). Note that the resources listed on the document are periodically updated.

It would also be a good idea for your team to read two guides to adult basic education blended learning that will show you examples of how others are implementing it and offer you advice and resources.

1. Blended Learning for the Adult Literacy Classroom

If you and your colleagues are ready to act to create or improve your use of blended learning, you may find useful this link to a free, downloadable guide, Blended Learning for the Adult Education Classroom https://www.passged.com/educators/blended-learning.php or, for short, http://bit.ly/2JjOVZA. The guide, for which I am the lead author, will serve as a step-by-step road map for choosing and efficiently implementing a blended learning model that meets your needs and budget. Whether you are a beginner in blended learning, have experimented with blended learning and want to improve your skills, or you are a blended learning expert, you will find information and resources that will be worthwhile.

The guide gives an introduction to what blended learning is and how it can help you, your students, and your program; descriptions of how a wide range of adult basic skills programs (volunteer tutoring programs, ESL/ESOL, adult secondary education, and transition to college programs) are using blended learning; how you can use blended learning with your students; how to decide on an online learning platform that meets everyone’s needs; and more. There is also an eight-page appendix of links to useful, mostly free, resources that you may also find helpful, including:

- Technology use surveys that you can use with your students
- Computer and digital literacy skills assessments and lessons
- Free online filing tools, shell platforms, learning platforms, and website builders for creating a web presence, and
- Other tools and apps that are useful for adult blended learning instruction.
2. **IDEAL Consortium Distance Education and Blended Learning handbook.**

Available free from the World Education Ed Tech Center at [https://edtech.worlded.org/wp-content/uploads/2018/08/IDEAL-Handbook-6th-Edition-8-16-18.pdf](https://edtech.worlded.org/wp-content/uploads/2018/08/IDEAL-Handbook-6th-Edition-8-16-18.pdf), this handbook has been the core of the IDEAL Consortium foundational course called IDEAL 101 since the early days of what was first called Project IDEAL at the University of Michigan. The course supports state-level staff and program directors and key instructors with blended and distance learning program development. The current edition rests on knowledge gleaned from key research and also reflects the collective input of several distance or blended learning leaders in ABE programs across the country. It has a Creative Commons license so that any practitioner hoping to build distance or blended learning programs can benefit from it.

The handbook is a program development guide that helps practitioners, program directors, and other stakeholders systematically consider implementation strategies in several key areas: recruitment, screening, orientation, instruction and assessment. Within each of these areas co-authors Jen Vanek and Destiny Simpson have included descriptions of effective practice as described in reports and academic publications. They also relied heavily on first-hand accounts of successful implementation from IDEAL Consortium members. Each chapter contains descriptions of this literature and the narratives of member states’ leaders. Each chapter then closes with reflective questions intended to nudge readers into consideration of program development.


**Reflections**

Designing and implementing a successful blended learning program is now a priority for many adult basic skills (including ESOL/ESL) programs. An effective program in which face-to-face and online learning are fully integrated is not easy or quick to create, but it can be done in small steps over time, beginning with a pilot in one or two classes. If there is an excellent online course or curriculum, then the face-to-face learning can be created to integrate and supplement that. Alternatively, if you have a successful face-to-face curriculum you can design and integrate your own online supplements. If your face-to-face curriculum, for example, is already built on College and Career Readiness Standards (CCRS) it is becoming increasingly easier, for example with the help of the CrowdED learning website [https://www.crowdedlearning.org/](https://www.crowdedlearning.org/) to identify free or proprietary resources to enhance the face-to-face learning. See the Technology Solutions for Adult Basic Skills Challenges column in Volume 1, Issue 1, Page 75, for more information about this: [https://www.proliteracy.org/LinkClick.aspx?fileticket=0TEMdLV6sCc%3d&portalid=0](https://www.proliteracy.org/LinkClick.aspx?fileticket=0TEMdLV6sCc%3d&portalid=0)
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