ADULT LITERACY EDUCATION:

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Adult Literacy Education:

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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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Research Article

A Portrait of the Adult Learner: Pluralistic Interpretations of Literacy Learning Outcomes Over the Years

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Abstract

In Canada, various studies investigating literacy learning have contributed to our understanding of the lives of the adult student. Through a consolidation of empirical evidence, a portrait of the adult learner is sketched, drawing upon pluralistic interpretations of the important life changes that have resulted from their participation in literacy education. This portrait highlights the significance of a variety of learning outcomes that go beyond traditional measures of knowledge and skills acquisition, with an emphasis on the relevance of such outcomes for different types of literacy learners, in various settings, and along three diverse learning pathways. International implications are highlighted in the discussion.

Keywords: adult literacy, learning outcomes, diverse learning pathways

There has been much debate about how to define and measure adult literacy education outcomes. In Canada, like many other Organisation for Economic Co-operation and Development (OECD) countries, the understanding of literacy and its definitions for program outcomes and policy development have shifted over time. An earlier sociocultural understanding of literacy learning through a humanistic and citizenship lens has moved to more of a human capital approach (Osmond, 2016; Taylor, Trumpower, et al., 2017). Within this economic lens, adult learners are streamed into formal skills training for employment or transition to post-secondary education. Belzer and Kim (2018) suggest that the focus of such programs is on measured outcomes

that are expected to make participants more employable or upskilled to retain their jobs. As Tett (2018) explains, such training programs are designed around a narrow skills-focused pedagogy and outcomes. However, the scope of adult literacy learning outcomes is much broader than this.

The purpose of this article is to consolidate research findings over recent years on how adult literacy education has contributed to important life changes and outcomes for the adult learner. It draws from Canadian research funded through five major Social Sciences and Humanities Research Council (SSHRC) grants during an era when adult literacy as a field was maturing. Using the analogy of an adult learner "portrait," it

highlights the importance of a variety of learning outcomes that go beyond traditional measures of knowledge and skills acquisition. Although built on Canadian evidence, the implications extend to other nations who have invested in the Programme for the International Assessment of Adult Competencies (PIAAC) such as the United States, Australia, New Zealand, United Kingdom and other Western countries. The canvas for this portrait will emphasize the relevance of such outcomes for different types of literacy learners, in various settings, along three diverse learning pathways. The journeys that are documented include: collaboration in communities of literacy learners and partnership building; adults acquiring higher skills during the life course; and mature adult learners experiencing identity transformation.

Lifelong Learning as an Organizing Framework

As a means of situating the three pathways, an organizing framework taken from the lifelong learning literature frames our adult learner portrait. Recently, the UNESCO Institute for Lifelong Learning (2009) has expanded the conceptualization of lifelong learning as all purposeful learning activity across the lifespan including "learning activities in all settings from formal education to informal and non-formal learning" (p. 472-473). Embedded in this concept are ideas related to lifelong, life-wide and life-deep learning. Aspin et al. (2012) explain that throughout the life course there is interplay of informal, non-formal and formal learning that happens in different contexts and refer to this as life-wide. As well, they discuss the importance of recognizing the social, moral, ethical and religious dimensions of human experience and designate this as life-deep.

Knox et al. (2017) have suggested that outcomes in adult learning activities take various forms. These outcomes tend to be cumulative, with lifelong connections that are associated with the learning activities and often "have results beyond achieving program objectives" (p. 296). Examples of such outcomes range from discovery of new learning opportunities in everyday experiences to the development of social networks. However, as Smith (2017) claims, many formal adult basic education (ABE) programs and accompanying assessment protocols are driven by the guiding philosophy of the service provider, the funding agency, the theories about learning that are endorsed by the program directors and a standardized curriculum. Moreover, she maintains that such formal programs that have a singular focus on skills development may be short sighted and ineffective. Similarly, Hill (2017) reports that funding for formal adult literacy programs have imposed a market-oriented approach. This often means that goals of learners may become secondary to mastery of a standardized curriculum.

Werquin (2010) suggests that policies are increasingly focusing on outcomes and take a lifelong learning perspective which emphasizes a variety of learning contexts. Formal and informal learning could be considered as the two extremities of a learning continuum with non-formal learning situated somewhere between. Outcomes, on the other hand, have been defined as the knowledge, skills and competencies that people have acquired as a result of learning. Fittingly, Werquin (2010) adds that outcomes are much broader than knowledge and skills, but can be difficult to measure, codify and be recognized socially. To illuminate these broader adult literacy education outcomes, we now sketch the three pathways which are the essence of our emerging adult learner portrait.

The Three Pathways

Collaboration in Communities of Literacy Learners and Partnership Building

In the first component of our composition, we see adult learners in communities of literacy practice, learning with and from each other. Too often, the measurable outcomes of adult literacy programs, such as the acquisition of literacy and numeracy skills, are conceived of as individual phenomenon. However, as Taylor et al. (2003) recognized, adult learners develop such skills through participation in collaborative practices. In a case study of four adult literacy classrooms in an Eastern Ontario Literacy and Basic Skills Program, these authors showed how collaborative learning activities, such as scaffolding and cognitive apprenticeships, help learners develop independence and social skills that have wide-ranging transferability to the workplace, home and community environments. They also revealed that collaborative learning can be supported by enabling, rather than directive, teaching styles as instructors identified their own beliefs about teaching. One implication of this study, and those described below, is that a restricted focus on immediate skill acquisition cannot account for the longer term, life-wide and life-deep impact of adult literacy programs.

Taylor, Abasi, et al. (2007) explored in greater depth how communities of literacy practice develop and lead to long-term outcomes during the life course. Investigating formal and non-formal adult literacy programs offered by two school boards, a community college career and access program, and a community tutorial literacy program, they found that some of the outcomes which result from engagement in communities of practice include attitudes and skills that are highly useful and valued in the workplace, community and home. In communities of literacy practice, learners move from being guided on their journey towards a pathway opening to independent learning, taking on increasing levels of responsibility. When they first embark on this path, learners may be reluctant to seek assistance from instructors or peers, due to lack of confidence, communication skills, or knowledge about who to ask for help. However, they observe and learn from more knowledgeable peers. As their confidence increases, they assume the role of more knowledgeable other and can share their understanding, model their newfound skills and coach others in their community of learning. Such collaborative practices provide opportunities for further developing communication abilities, self-esteem, and confidence. These are crucial growth outcomes as they try to better themselves as parents, spouses, workers, and citizens. As one instructor of a formal literacy program noted, "It gives the students the opportunity to explain or express their opinion; all those soft skills which the academic environment does not mark and does not necessarily evaluate. But in real work, in a community, they are valued highly. When you are teaching something to someone, you have to justify your choices, how to express yourself, and to convince others" (as cited in Taylor, Abasi, et al., 2007, p. 8).

Taylor, Evans, et al. (2007), in a mixed methods study of five adult literacy programs in Canada and three workplace basic skills programs in public sector organizations in the United Kingdom, were able to elucidate some specific collaborative skills that learners develop, which transfer to the workplace and everyday life. Among them is negotiation - a complex process involving an evaluation of one's own learning needs, perceptions of the abilities of peers, and decisions around who in a community of learners has common learning goals and common cultural and life experiences.

Developing such a multidimensional skill also requires a recognition and appreciation of the benefits of social learning. In the workplace and the world outside the classroom, rarely does learning occur through direct transmission of knowledge. Moving beyond short-term skill acquisition, this learning outcome involves a more active and collaborative process of seeking information, making sense of it, and sharing it. It also encompasses metacognitive awareness of the competencies that one lacks, how and whom to ask for help in increasing them, developing communication skills and confidence, and building respectful relationships that support the giving and receiving of information. That is, it comprises a valuable skillset which facilitates sustained learning and illustrates the valuable outcomes of collaborative learning that occur in formal and non-formal adult literacy programs.

Another type of community of literacy practice was found in an Adult Learning Centre for indigenous adults in Northern Ontario (Hauer & Taylor, 2008). In this qualitative case study, interactions among indigenous learners, instructors and the learning environment were investigated. Rather than recounting any short-term program outcomes which were not a requirement of the funder, attention was given to the lifelong learning process of adults in the Centre. A metaphor of entering a house of literacy learning was developed to describe how learners become part of a community of literacy practice. Initially, an individual comes to the program with hopes and dreams for the future, including personal goals, further education, or employment preparation. For example, one participant stood at the threshold of the Literacy Centre with her dream to help her own children with their homework and decided to enter as the next phase of her life journey.

Once an individual decides to cross the threshold, he or she steps forward into the house of literacy learning and engagement in activities begins. These include developing a sense of personal safety, encouraging a sense of respect for the learners, increasing motivation, and forming groups of like-minded learners. In addition, the physical environment of the Centre had much to do with developing the community of literacy practice. Once learners enter the house of literacy learning they notice a large round table located in the middle of the room signifying the importance of building relationships. As the Director of the Centre stated, "Aboriginal adults learn through relationships and communication with others rather than through engaging with printed information." It was this interchange among learners and instructors that was key to the development of a community of literacy practice. Depending on the learning situation, individuals changed their role, moving from newcomer to mature group member and back. For example, in a Japanese language class, the mature group members tended to be individuals who had previously learned a second or third language. John and Pauline, who often acted as newcomers in other literacy learning activities, were mature group members as they could easily make connections between words they knew in Ojibwe or Oji-Cree and the new Japanese words. Mature group members not only assisted newcomers in class work but also helped by creating a warm, inviting environment. Also related to the importance of relationships, an instructor spoke about Shelly, a former student, who had been reticent to come in the door of the Centre. When she finally felt ready to ask for help with her basic reading skills, her participation in the Learning Centre cultural activities also increased. Over several months, she not only improved her skills in reading and writing but also became more

outgoing, started an entry-level job at a hotel and found herself in a steady relationship.

Support for this community of literacy learning were described as the floorboards on which the house rests. The Literacy Centre's non-profit community organization, its funding agency and other organizations involved in adult learning in the community supported all of the activities of the Centre. For example, the Centre's board members who had a personal commitment to adult literacy as a foundational skill believed that any results would impact and assist other community members in the region. As a result, cooperative relationships among the eight organizations involved in adult education in the town developed, providing a supportive environment for adult learners at the Literacy Centre. This type of environment was congruent with indigenous culture and respectful of learners' previously negative experiences with formal education. It included a comfortable, relaxed social atmosphere, flexible schedule, and broad but flexible learning expectations. Thus far, as the adult learner portrait emerges, a substantial component is how collaboration among individual adult learners leads to personal growth outcomes that move beyond the short-term acquisition of basic skills. Adding to our composition is a macro-level element that considers the influence of programming, funding and partnership building. Taylor, Widdifield, et al. (2007) examined aspects of collaboration at the broader national program level. More specifically, they investigated partnership development in a case study of the National Literacy Secretariat (NLS) Business and Labour Partnership Program. This program was a large initiative of the Canadian federal government focused on engaging business, labour, educational practitioners, and provincial governments in partnership projects aimed at enhancing adult work-related literacy to improve economic performance and employability. The study examined this funding program from its inception in 1988 through its periods of foundation-building, development and change in 2006. Among the accomplishments achieved by this multitude of partnership projects over 15 years was creation of innovative models for delivering workplace literacy, support for training and consultations, and development of assessment and evaluation tools, such as the Test of Workplace Essential Skills (TOWES).

Drawing from multiple sources of data, including interviews, field notes, archival records and program documents, Taylor, Widdifield, et al. (2007) determined a number of critical factors for collaboration and successful partnership-building in workplace domains. Most relevant to our adult learner portrait, one macro factor identified was "visioning the full range of possibilities with the field…to understand the complexities of workplace literacy…through a social development lens" (p.10). The rudiment of this funding policy reflects how successful outcomes of workplace literacy programs extend beyond literacy and specific work-related technical skills to include social consequences. For the most part, during mandatory cyclical reviews of this funding program, it was found that the lives of adult learners had changed across the various delivery models. These changes included improvement of individual workplace skills but extended into their lives at home and in the community.

Other factors identified for successful partnership building included "respect for stakeholder values, differing points of view and open and frank discussions" among partners and "small projects that focused on local needs" (Taylor, Widdifield, et al. , 2007, p. 10-11). These factors imply the

importance of being aware of the unique context of a literacy program in order to consider success beyond the individual worker level. Throughout program planning, when stakeholders recognize program goals and processes from other frames of reference, they can come to a better understanding of the extent of learning outcomes required to fully capture program impact. This may be contrasted with the factors which led to unsuccessful partnerships, such as when "project objectives are primarily tied to accountability" and there exists "rigid reporting requirements and micro attention to project financial accountability" (Taylor, Widdifield, et al., 2007, p. 12). Later in the life cycle of the NLS program, a narrower focus on outcomes restricted to standardized measures of essential skills had a negative effect on project impacts.

Adults Acquiring Higher Skills During the Life Course

As our portrait continues to emerge, we integrate another learning pathway into the composition focusing on learning outcomes observed in the everyday lives of adults with very basic literacy skills. There are three important elements embedded in this path with the first centering on the outcomes for basic level employees in workplace training programs. Highlighted again here is that adult learning outcomes move beyond the traditional short-term measurement of program objectives and illustrates the life-wide changes that employees experience because of workplace training. The second element along this pathway illustrates the informal learning outcomes for IALS Level 1 and 2 adults in their daily literacy practices that are life-deep, while the third describes deaf adult learners overcoming life challenges through the development of novel lifelong learning goals.

Learning Outcomes of Adult Workers with Basic Literacy Skills

About a decade ago, the Canadian Council on Learning (2008) reported that despite the importance of adult learning, a number of challenges persist. Although rates of participation in adult education and training seemed to increase over the last few years, there are still segments of the workforce with unmet learning needs and those in most need are least likely to get further education and training. One of these groups is adult workers with low literacy skills (Myers & de Broucher, 2006). Coupled with this problem is the paucity of data about the kinds of formal and informal training activities in which workers with low literacy skills actually participate. An earlier report on the Adult Education and Training Survey (AETS), looking at the training of Canadian workers, defined formal job-related training as courses or programs related to a worker's current or future job (Peters, 2004). These courses/programs have a structured plan whereby an employee, led by an instructor or trainer, follows a program and receives some form of formal recognition upon completion, such as a certificate or a high school diploma. On the other hand, informal job-related training involves little or no reliance on pre-determined guidelines for its organization, delivery or assessment. It does not lead to any formal qualification or certification and is undertaken by the participant with no specific intention of developing job-related skills or knowledge.

In order to understand informal job-related learning and workers with low skills, Taylor and Evans (2009) employed a multi-site case study with 31 employees and 18 instructors from seven different types of workplace literacy programs in Canada and 42 employees and 6 supervisors/ tutors from four workplace basic skills programs

in England. Findings suggest important learning outcomes that could not be captured by measurement of formal training program objectives alone.

Beyond the immediate intended targets of formal training, a continuous learning outcome was that employee participation in a formal program acted as a catalyst for various informal learning activities that occurred back on the shop floor. Participating in an organized class or tutorial session heightened employee awareness of the importance to learn and take charge of their learning, even beyond the workplace. This interplay between formal and informal training was synergistic. Back on the shop floor, employees experienced a certain assuredness in their literacy skills to self-direct their own learning and try their regular or associated job tasks in different ways by themselves or with others. It seemed that workers began to realize the range of informal learning possibilities available to them. For some employees, the driving force for participation in the formal program was the credential while for others it was the chance of career advancement. However, this external motivation shifted once they became engaged in the more informal learning back on the floor.

Five different types of self-initiated, informal learning activities were identified. The first type, "Observing from Knowledgeables," included learning a new job task or the same task in a different way from a more proficient co-worker or supervisor. This often meant that the worker self-identified a mistake in a job task and searched for an expert to observe doing the same task. "Practicing without Supervision" was a second type of informal learning activity in which workers sought new challenges in their crews where they could practice a skill, like problem solving, or participating in the company in

a new way, such as joining a union or health safety committee. A third type was "Searching Independently for Information." Workers often used their reading and computer skills to search for new information on a problem presented in the routines of the workday. Frequently, the Internet, Intranet and work manuals were used for this information search. If employees had already taken a workplace course on computers, there was transfer of learning of those skills back to the unit and if not, some initial guidance by a co-worker on how to perform the computer task was provided. "Focused Workplace Discussions" with peers and supervisors was another type of informal learning. Employees used questioning and summarizing skills to engage in workplace updates. They sometimes exchanged shop talk around work task procedures and updates on new machinery. "Mentoring and Coaching" was the fifth type. Most workers who taught a fellow employee how to perform a job-related task reported that there were many gains by learning in this way. They realized that they first had to talk through the steps of the job task and understand the sequencing before coaching another worker. A common pattern for these types of employees was that they became aware of an increased ability to mentally organize information when demonstrating a task to another worker.

Everyday Literacy Practices of Adults Acquiring Higher Skills

Whereas the section above shows that informal learning can be a valuable outcome of more formal workplace training, this section illuminates some of the myriad ways in which informal, life-wide learning is experienced by workers and non-workers alike. Using an ethnographic research design, Taylor (2006) broadened the lens of adult literacy outcomes by revealing the interaction of life roles, informal situated learning

environments, and everyday literacy practices of 10 adults with the most basic levels of competence (IALS Level 1 or 2). Informal learning was operationally defined as any activity involving the pursuit of understanding, knowledge or skills which occurs without the presence of an externally imposed curriculum of formal and non-formal institutional programs.

Life roles which precipitated informal literacy learning consisted of combinations of being a parent seeking better educational opportunities for one's children, being a supportive spouse, partner or family member, giving back to one's community as a volunteer, and striving to be a valued employee. Thus, informal literacy learning took place in three main environments: home, community, and workplace. Some examples of the informal learning that occurred at home included self-directed learning about affordable housing and daycare, budgeting and comparative shopping, home repairs, and school-related homework topics. In the community, individuals learned informally, for example, to take inventory as a volunteer at a school cafeteria or about the muscular system and understanding test results through interactions with a physiotherapist. At work, employees learned about accident procedures on a safety committee and how to input data into a new shop floor computer. These examples show how literacy practice, including oral communication, reading, writing, numeracy, teamwork, and problem solving, occurs daily, and if the full impact of adult literacy learning is to be recognized, then outcomes that span home, work, and community contexts should be considered.

Deaf Adult Learners Overcoming Life Challenges Through Literacy Practices

In this third element that follows, results from a case study of the Deaf Literacy Initiative from the Ontario Literacy Basic Skills (Deaf LBS) program are highlighted. The findings suggest that program context, content, individual learner characteristics and instructional style contributed to a reformulated identity for the deaf learners. Participants described how newly acquired literacy practices not only increased their self-esteem but awakened lifelong learning goals. Learners felt more empowered and confident in themselves as both literacy learners and adults. This was, in part, due to the deep reflection that occurred throughout their journeys as deaf literacy learners in a community of practice. According to Taylor and Roberts (2013), both the functional program approach and the individual outcomes enabled learners to create new literacy practices that became ingrained in their everyday lives as social practices.

In this particular program, real world content was layered and organized into modules using learners with mixed abilities in a small group format. For example, learners not only *discussed* issues revolving around public transportation, but *practiced* reading bus signs, paying correct fares, filing complaints and following through on complaints. In a nutrition unit, learners focused on how to read food labels to distinguish what could be considered good and bad nutrition. These topics were supported with actual trips to the grocery store using weekly food flyers and newspaper articles (Roberts, 2010). A Quilting module enabled learners to use numeracy and literacy in new ways that were connected to real life experiences. One participant learned how to operate a sewing machine while another identified English words and symbols for different types of cloth. A WHMIS module showed learners new workplace literacy practices such as reading yellow safety boards, hazard symbols, and labels on cleaning products. Learners in a Computers with Seniors module were introduced to software

to create letters, budget sheets and organized lists for personal and professional reasons. With a personal support workers (PSW) agency located in the same building that housed the Deaf LBS program, workers provided testimonials, experiences from their job sites and access to a long term care facility to learners who were taking a Pre-PSW module (Roberts, 2010). Through these types of interactions, literacy became practices instead of skills. Reading and writing tasks were no longer seen as discrete skills. They became embedded into social practices that allowed learners to become literate in non-traditional ways. As can be seen in the paths of these adults with basic skills, literacy learning can lead to outcomes that are observable in everyday life at home, work, and communities, and can even lead to identity transformation, which is examined in greater detail in the last pathway considered next.

Mature Adult Learners Experiencing Identity Transformation

For the final component in our portrait, we see how literacy learning and the variety of associated outcomes can have a profound impact on the adult learner. Here, we examine how adults engaged in upgrading, essential skills and workplace training, through formal and non-formal programs, gain awareness of the value of existing social resources, develop new relationships and social skills, and learn to leverage them in support of lifelong, life-wide, and life-deep learning. Such outcomes extend well beyond the instrumental goals typically associated with adult literacy programs and account for some identity transformations that can occur in the lives of adult learners.

Typically, adult literacy and basic skills training has been viewed as preparation for employment, with increased wages and productivity as measurable outcomes. But, as we have come

to view literacy as a component of human relationships rather than an individual skill, we must accept the challenge of how to measure the non-economic returns of investment in workplace education, essential skills programs, and work-based learning. This is what Taylor et al. (2012) did when they developed the Social Capital Inventory (SCI). Recognizing that adult learning can often support development of social skills, relationships, trust, engagement, and other unintended consequences that might only be captured by moving from measures of earning toward measures of learning in the broadest sense, and drawing on Lin's (2001) definition of social capital as "the resources embedded in a social network that can be accessed or mobilized through ties in the network" (p. 49), a measure was developed, comprised of four dimensions. These included the quality of one's social networks, such as trust, efficacy, diversity, and inclusivity; the structure of one's networks, which involves size, power relations and modes of communication; the transactions that occur within one's networks, such as sharing support and knowledge; and the types of networks, which include bonding, bridging and linking types.

Applying the SCI, Taylor et al. (2013) investigated the associations among social capital and self-directed learning readiness using a mixed methods study of adult learners with varied goals. Participants included adults returning to an adult high school to obtain their grade 12 certification with goals of further education and long-term careers, those enrolled in an adult high school custodial training program with goals of immediate job entry, and others engaged in workplace training opportunities with goals of self-improvement. Analysis of quantitative data revealed that these adult learners possessed relatively high levels of self-directed

learning readiness, as indicated on the SDLRS scale (Guglielmino & Associates, 2012), and social capital, as indicated by the SCI. Further, interviews with participants suggested how they developed social skills and resources as well as better awareness of the social resources that they already possessed, as they were simultaneously acquiring essential skills in formal and non-formal programs. Some examples of the social capital that developed included greater recognition of the social resources available to them, such as networking with students outside of class, participation in brown bag lunch meetings at work, and travel to workshops. Another occurrence of social capital was the improved confidence to access such resources, including the use of the internet to locate information, use of company policy manuals, and use of software. Also, learners came to believe that they had knowledge and skills worth sharing, as seen in the active contributions they made at work meetings and social committees. Thus, this study showed that adult learners have a readiness to gain much more than just the basic skills that are the overt objectives of many essential skills programs; they also develop relationships and resources that enable continued informal learning at home and the workplace. Coupled with the findings of Taylor and Trumpower (2014) these conclusions demonstrate the value of social and personal outcomes as a means for measuring the success of basic literacy education.

Whether social capital is built in the process of adult learning programs, or adult learners develop a greater awareness of their social resources and subsequent ability to apply their social capital, it is clear that outcomes beyond skill acquisition are important. Indeed, as adult learners gain confidence, knowledge, and skills, they undergo identity transformations that can lead to sometimes

profound lifelong learning experiences both within and outside of the workplace. Taylor et al. (2015) conducted a secondary analysis of qualitative data obtained in the Workers and Lifelong Learning project (described by Taylor et al., 2013) and the Developing a National Framework for Essential Skills project (described by Taylor & Tashereau, 2014). They found that "…environments and approaches leveraged the opportunity presented in essential skills and employment training to also encourage reflection, interaction and outcomes which extended beyond instrumental goals of the programs" (p. 830). Noteworthy is that the instructors of these programs realized the multiple and varied learning goals of trainees that surpass workplace specific skills. As a result, individual assets of the worker and trainee such as enrichment through learning, job satisfaction, increased confidence, feelings of wellness, and self-esteem influenced how they viewed themselves differently. Pivotal to these changes in identity was how the instructors developed self-directed and social learning activities that transferred outside the classroom. Participants learned with and from each other during online activities, small group discussions among individuals with diverse perspectives, and knowledge sharing across workplace departments. And, participants noted instances in which instructors provided support, set a positive tone in the classroom, and established motivating conditions, which led to feelings of safety and trust in the growth process. All of these were transformative factors which permeated their life roles as workers, parents, spouses and community citizens.

In this second example, we describe how adults living with limited literacy and chronic illness made meaning of their patient education experiences and took more control of their lives as a result of the participation in a literacy classroom.

Using a hermeneutic phenomenological research design, King and Taylor (2010) studied 14 adults enrolled in two basic education programs in Ontario who had chronic illnesses such as asthma, diabetes, high blood pressure, arthritis, or any other physical problem that had lasted for at least nine months. In an attempt to understand patient education experiences of these adults with limited literacy and chronic illnesses, an interplay among various factors was found. For example, participants thought of family members as interpreters, readers, and mediators when they faced barriers to communication with members of the health care team. They asked their children to explain unfamiliar terms that a doctor had used and took home patient education pamphlets so their children could help them with the reading.

As well, these adult learners felt that health care providers did not listen to them or explain their medical problems and treatments in a way they could understand. This resulted in feelings of mismatched expectations with the health care providers which led them to believe that they lived between two worlds. They perceived themselves as different from others in society who were well and lived healthy lives. These learners also believed that because they had gone back to school to improve their literacy abilities, they were different from the majority of society whom they perceived as having no difficulties with literacy. As a result, they harbored feelings of powerlessness, including a fear of exposure rooted in the experience of living with limited literacy.

Perhaps the most significant finding was the individual transformation that each participant experienced following daily participation in the basic education program. Learning activities developed into a community of practice, allowing participants to overcome, or at least lessen, some barriers they faced, take greater control of their

lives, and manage their chronic illnesses better. For example, participants encountered difficulty obtaining or understanding patient education information intended to help them manage their chronic illnesses. However, as their reading skills and self-efficacy improved through the communities of practice that developed in the literacy classroom, they were better able to find and interpret health information on their own.

A Portrait of the Adult Learner with Cross-National Perspectives

In the following discussion, we draw from the range of literacy outcomes discussed above through various settings and learning pathways to sketch a portrait of the adult learner. Although drawn from Canadian "ink," we illustrate how the portrait is reflective of adult learners across other countries, as well.

A first feature in the portrait is collaboration among individual adult learners leading to personal growth outcomes. Being part of a community of learning serves as practice for trying out newly developed literacy and social skills within a safe environment, including the capability for self-directed learning. In the United Kingdom, for instance, a collaborative peer-led reading program for literacy learners in prison enabled participants to re-imagine themselves as social actors and connect their learning to self-directed identity building (Kendall & Hopkins, 2019). And in the United States, collaboration in a community of church-based ESL programs empowered Latino and Asian learners to discover and acquire funds of knowledge and find their voices in the larger society (Chao & Mantero, 2014).

This first feature of adult learners is supported by instructors who are aware of their own teaching beliefs and use enabling rather than directive teaching styles. For instance, in Western Australia

and New Zealand, McHardy and Chapman (2016) argued that instructors of less skilled adult readers must first understand their own beliefs about teaching, and their consequences, before they can effectively respond to learner needs. The various learning outcomes associated with this feature of the adult student appears related to the development of meta-cognitive abilities. As Talwar et al. (2018) maintain, to improve literacy programs, instructors need a better understanding of the cognitive profiles of adults who struggle with reading.

A second feature of our adult learner portrait focuses on informal learning outcomes and the importance of supports during informal training. International reflections of this feature can be seen in pineapple farmers in Thailand who used non-formal vocational training to develop higher skills and improve the rural economy (Suebnusorn, 2016). In this training program, trust was developed between farmers and pineapple processing factories as the farmers learned new planting skills and needs of the factories. Referred to as "informal workers," back on their farms they informally learned to keep records, calculate costs, and plan their cultivation. In the United States, Copeland et al. (2016) showed how adults with extensive support needs can enhance their opportunities for a meaningful life, acquiring literacy skills across the lifespan if supports are in place, such as being taught using a multi-component approach. Similarly, the deaf learners reported earlier overcame life challenges through literacy practices as their teachers used a multi-layered approach, focusing on real world content both in the classroom and in the daily environments of the learners. As Keiko and Black (2016) claim, despite the economic discourse that has dominated discussions about literacy and numeracy, adults find places and spaces to continue their desire for learning during the life course based on the lived experiences they have in their communities.

A third feature in the portrait depicts adult learners building relationships, experiencing identity transformation, and developing social capital. In an Australian context, Black et al. (2006) asserted that formal adult literacy and numeracy courses have a complex mix of results that combine social and human capital outcomes and that these effects have a socio-economic impact. In a similar vein, but using U.S. data from PIACC, Calonie and Gray (2018) suggest that profiles of human and social capital can help understand education needs of adult immigrants. By understanding the unique skillsets among immigrant learners, customized approaches capitalizing on these assets can increase the capacity for service providers to serve. Also related to pre-literate ESL learners in an Australian context, Atkinson (2014) argues that programs need to be reframed with a social and holistic orientation to acknowledge learners' emerging sense of identity. Casey and Asamoah (2016) summarize by stating that humanistic non-formal and informal learning practices foster transformation, development and human relationships.

On an endnote, we ponder the funding policies and types of adult literacy learning that are presented here. One way forward is to continue to advocate for national adult basic education systems that acknowledge all types of learning gains. As Belzer and Kim (2018) claim "not only would such a system benefit learners, but it would also have a social return in improved health outcomes and civic engagement and most probably on other important social measures" (p. 607). Finally, there is much hope that resonates from the actual adult literacy classroom where practitioners can act as action researchers to identify the new kinds of learning outcomes that are being voiced by a different and diverse adult student.

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Research Article

Examining the Impact of Workplace Literacy Programs on the Structure of Social Networks: A Study of Low-Income Somali Refugee Workers

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Abstract

This study aimed to examine the impact of workplace literacy programs on the structure of social networks accessible to low-income Somali refugee workers. We conceptualized structure as network size and tie strength. Data were drawn using interviews with eighteen participants enrolled in a workplace literacy program. The classes offered included English as a Second Language, high school equivalency, and citizenship, and participants had attended classes for at least 3 months. The interview protocol was designed using a name generator instrument. The findings revealed that participation in classes had a positive impact on their network structure, through the acquisition of strong ties with co-workers.

Keywords: workplace literacy program; Somali refugee workers; social capital; social network structure; strong ties.

According to Hammond et al. (2011), civil war in Somalia has continued since 1988, and as a result, most of the country has been the site of conflict, forcing civilians to migrate to other countries. Pursuant to the establishment of the U.S. Refugee Act of 1980, Somali refugees have relocated to the United States in large numbers, making them the largest African refugee group in the labor force (Goza, 2011). In spite of their involuntary migration, Somali refugees in the United States possess a strong sense of communal identity, solidarity, cultural confidence, and pride that enable them to adapt and strengthen their resilience in adverse situations (Eleonoora, 2016). They have a greater tolerance for risk and hard work, and are often described as entrepreneurial, pooling financial, labor, and other economic resources, thereby contributing to the U.S. economy (United Nations, 2018).

At the same time, as a minority ethnic group in the Untied States, Somalis are uniquely confronted with significant barriers that place them at risk of marginalization and discrimination (Fangen, 2006). First, although many of them are proficient in multiple languages such as Somali, Arabic, or Swahili, gaining English language proficiency

has been challenging and made their adaptation and upward mobility difficult (Eleonoora, 2016). Second, it is estimated that, in Somalia, about 42% of the population is illiterate, and the education of Somalis in refugee camps is almost non-existent (Hammond, 2013). Third, even for the Somalis who are educated, their prior educational achievements and work experiences remain unrecognized or undervalued in their host communities. Accordingly, many Somali refugees are educationally disadvantaged, experience frequent bouts of unemployment, or are overrepresented in low-skilled, low-earning jobs (Goza, 2011). Overcoming the barriers posed by low levels of overall literacy and English language proficiency is often fundamental to the process of social integration, employment, and mobility.

Recognizing the low levels of literacy among large segments of the U.S. labor force and the need to enhance the economic mobility of America's working poor (Bernstein, 2017), the U.S. government established the Workforce Innovation and Opportunity Act of 2014 (WIOA). Pursuant to the WIOA (2014), workplace literacy programs have been recognized as useful strategies for improving the literacy of educationally disadvantaged workers. The term "workplace literacy program" simply refers to a literacy or education program typically carried out at the workplace or in a setting provided by the employer (Milkulecky & Lloyd, 1997). Rather than teaching abstract skills, workplace literacy programs are needs-oriented, and aim at strengthening literacy skills such as reading, writing, listening, computation, speaking/language, and critical reasoning skills (Morgan et al., 2017). Over the years, these programs have benefitted immigrants, including refugees, and non-immigrant workers equipping them with the skill set necessary to succeed in the workforce, improve organization's

performance, as well as advance their personal and professional development (Wood, 2010).

In accordance with the provisions of the WIOA, workplace literacy programs are typically examined in the context of their economic benefits, conceptualized as human capital, essential for employment and productivity. However, emerging research suggests that the outcomes of these programs exceed economic benefits to include the promotion of social relationships – networks - that are fostered through learning (Kilpatrick et al., 2003; Schuller 2017). These social relationships have been associated with different outcomes – positive and negative – conceptualized and documented in the literature as social capital (Balatti et al., 2006; Field & Spence, 2000).

Examining Outcomes of Workplace Literacy Programs from a Social Capital Perspective

Despite the evolving social capital scholarship, there are still genuine concerns about its measurement; particularly as it relates to the relationships that are fostered through learning or literacy development, and in the context of low-income minority social groups. Till date, various indicators, dimensions and/or scales have been used to examine social capital outcomes of learning. Some of them include trust, social inclusion, social cohesion, self-confidence, community engagement and civic participation etc. (Balatti et al., 2006; Kilpatrick et al., 2003; Tett & Maclachlan, 2007). Consequently, there is neither a universal measurement method nor a single underlying indicator established in the literature for measuring social capital outcomes of learning.

For instance, in a longitudinal study that

investigated the social capital development of adult learners in California, Macdonald and Scollay (2009) established that participation in learning resulted to greater connectivity between individuals which manifested in social trust and civic responsibility. In a similar study on Scottish adult literacy learners, Tett and Maclachlan (2007) opined that participation in learning fostered positive changes in learners' attitude, such as the development of self-confidence which facilitated social interactions. Desjardin and Schuller (2007) argue that learning facilitates the creation of social capital in the form of trust, social skills, and civic engagements, necessary for individual and community well-being.

These studies, though valid in terms of demonstrating a link between literacy acquisition and social capital development yet lack a theoretical basis for empirically measuring social capital. We suggest that any attempt to examine social capital should be grounded on a specific conceptual or theoretical framework. Without a conceptual/theoretical basis for examining social capital, its characteristics and potential remain unknown (Stone, 2001). This study represents a starting point for filling the research gap. Hence, inspired by the scholarships of Bourdieu (1986) and Granovetter (1973), we adopt a social network approach to examine the social capital outcomes of workplace literacy programs.

We define social capital as the structure of social relationships – network - accessible to an individual as a result of participation in classes, and that can be leveraged for support or used for productive purposes (Bourdieu, 1986; Granovetter, 1973; Lin, 2000). To this end, the primary research question is: how (and to what extent) does participation in workplace literacy program influence the structure of social networks accessible to low-income Somali refugee workers?

A focus on the structure of social networks allows for a more thorough investigation of the extent to which participation in classes may impact the quantity and quality of ties/relationships in an individual's social network, therefore influencing social capital development.

Conceptualizing Social Capital as Structure of Social Network

The structure of social network has been well discussed in the empirical literature and examined using various approaches. The most common include network size (Bourdieu, 1986), tie strength (Granovetter, 1973), network density (Coleman, 1988), and network homogeneity/diversity (Cummings, 2003). However, for the purpose of this study, we shall conceptualize structure as the size, and the strength of the ties in the social network accessible to an individual as a result of participation in classes (Bourdieu, 1986; Granovetter, 1973).

Network Size

Proponents of the structural network perspective have argued that the size or volume of an individual's network of relationships may affect the stock of social capital accessible to the individual (Bourdieu, 1986). Hence, individuals with large networks may have a larger pool of persons to call upon when in need, and as such have access to diverse social resources; such as emotional (e.g., companionship), instrumental (e.g., assistance in kind/cash), or informational (e.g., receiving novel information) (Smith, 2000; Van der Gaag & Snijders, 2004). On the contrary, those with fewer ties or small network may have restricted access to a variety of resources. For instance, in examining the structure of social networks of women, Cofie et al. (2017) found that women who had access to

large networks, were more likely to access both instrumental and emotional support compared with those who did not.

Although having access to a large social network is good, the diversity/heterogeneity of network members may be crucial for access to social capital. Several studies have shown that without diversity of contacts, the size of a social network may be ineffective in creating access to useful resources (Burt, 1992; Letki & Mierina, 2015). For instance, Gyarmati et al. (2014) argue that individuals typically benefit from having larger, less dense, and more diverse networks, as these kinds of networks can provide access to a wider range of resources, not available in the individual's close/immediate network. In the same vein, Son and Lin (2012) claim that diversity of social networks confers a relative advantage to the individual, because it reflects the extent to which additional resources are captured through relationships that are heterogeneous.

Tie Strength

According to Granovetter (1973), tie strength is a combination of the amount of time, the emotional intensity, the intimacy and reciprocal relations that characterize an individual's network of relationships. Building on Granovetter's conceptualization, some scholars have emphasized the importance of strong ties in determining access to social capital. For instance, Coleman (1988) attributes a child's educational attainment to the strong ties that they hold with their parents. According to Rademacher and Wang (2014), strong ties reinforce trust in interpersonal relationships, foster solidarity, and promote mutual exchange of resources especially among people of similar backgrounds or with shared interests (McPherson et al., 2001; Portes & Sensenbrenner, 1993).

Due to their distinctive characteristics, some studies postulate that networks of strong ties are unlikely to provide resources beyond survival or coping needs, thus highlighting the importance of weak ties (Agnitsch et al., 2006). Recognizing the limitations of strong ties, Granovetter (1973) argues that a sparse network characterized by weak ties often provides access to a wider variety of resources not likely to be available in closed networks characterized by strong ties. In the same vein, Lin (2000) argues that disadvantaged social groups are further marginalized in the absence of networks rich in weak ties. His findings are consistent with Loury et al. (2005), who assert that among vulnerable social groups the social capital emerging from their strong ties, although helpful for stability and survival, but is insufficient for socioeconomic mobility.

What follows from these studies is that for individuals from lower socioeconomic backgrounds, e.g., low-income Somali refugee workers, the optimal effects of social capital are present when their social networks are large, and/or consist of both strong and weak ties (Flora et al., 2016; Lin, 2000). It is against this backdrop that we seek to evaluate the impact of workplace literacy programs on the structure of social networks.

Participants

Participants for this study were recruited through a purposeful sampling from a group of Somalis employees working at a meat processing plant of a company located in the U.S. South. The plant was purposefully selected (Creswell & Plano Clark, 2011) on the basis that it provided opportunity for the literacy development of its employees with low literacy and language proficiency. Eighteen respondents were selected for this study, including 11 men and seven women, between 18-64 years of

age. At the time of the study, all the participants had lived in the country for at least 1 year, had received no form of education in the United States, and were enrolled in a workplace literacy program. Led by adult education instructors, the program offered free English, GED, and U.S. citizenship classes on-site at the plant, before and after work shifts. Participants were selected on the criteria that they had attended any of the classes for at least 3 months and were willing to participate in the study.

Research Design, Data and Methods

To examine the impact of workplace literacy programs on the structure of social networks, individual interviews were conducted. Respondents were given the option of interview in English or Somali language. About half of the interviews were conducted in Somali language with the aid of an interpreter. The interviews took between 60-90 minutes. The interview schedule was organized into three sections. The first section contained questions regarding each participant's personal background, including their socioeconomic and sociodemographic characteristics (e.g., age, gender, marital status, ethnicity, religion, level of education, family size etc.).

Second, we examined impact of workplace literacy program on social network size, by counting and comparing the total number of contacts with whom a participant established social relationships with before attending classes and after or as a result of attending classes. To accomplish this, we utilized the name generator instrument. This instrument contained a series of name generating and interpreting questions to elicit information regarding the profiles of contacts in each participant's social network (Marin & Hampton, 2007).

Using the name generator instrument, each participant was asked to mention at least five names of key contacts, with whom they share particular social relationships, in each of the following categories: family/relative, close friend, co-worker, neighbor, and acquaintance; describe the occupation, gender, age, religion, and ethnicity of each contact mentioned; recall and list, from the aforementioned contacts, the names of key contacts (per category of social relationships) with whom they knew and interacted with before attending classes and after or as a result of attending classes. The third section of the interview protocol focused on the strength of ties associated with participants' social networks existing before attending classes and acquired as a result of attending classes.

Measures of Tie Strength

Our indicators for tie strength were frequency of interaction and reciprocity or exchange of resources (Granovetter, 1973; Retzer et al., 2012). Frequency of interaction describes how often individuals are in touch with people in their social network (Manalel, 2018). In order to measure frequency of interaction, we referred to three of the key contacts generated in the preceding section, for each category of social relationships - family/relative, close friend, co-worker, neighbor, and acquaintance. We asked participants to describe how many times (daily, weekly or monthly) they were in contact or how often they interacted with each contact listed. We grouped each participant's responses into two distinct categories: often and not often. For instance, for interactions that occurred daily, weekly, or multiple times daily or weekly, we coded "often," and for interactions that occurred monthly or a couple of times a year, we coded "not often" (Haythornthwaite, 2002).

Reciprocity is the extent to which social support/resource is both given and received in a relationship (Retzer et al., 2012). Hence, to measure reciprocity, we asked participants to describe the nature of activities they engage in with each contact or support they have received and/or given – exchanged - as a result of their relationship. We coded participants' responses as two way (i.e., when activities were reciprocal or there was a mutual action of giving and taking), and one way (i.e., when activities were not reciprocal or mutual action was absent) (Petroczi, Nepusz, & Bazsó, 2007).

Data Analysis Strategy

All interviews were audio recorded, and then transcribed. After reviewing the transcripts, our analysis proceeded in two phases. In the first phase, data were organized and analyzed using descriptive statistics, and non-parametric statistical tests in SAS software. This allowed us to examine and describe the demographic characteristics of the population (Table 1); measure and compare differences in size of participants' existing and acquired networks across social relationship types (Table 2); and measure, classify and compare the strength of ties in participants' existing and acquired networks.

Inspired by the preceding phase, the second phase of the analysis involved thematic coding of participants' responses into broad themes. The aims were to enhance the interpretation of the descriptive and non-parametric statistics obtained from phase one of the analysis and gain participants' perspectives on how participation in classes may have impacted the structure of their social networks. The results from the descriptive statistics, non-parametric statistical test and thematic analysis will be integrated, systematically presented and discussed in the sections below.

Results

Overview of Sociodemographic Characteristics of Participants

Table 1 summarizes the demographics of 18 study participants. Their ages ranged between 18-64. The average age was 32.8 years. Eleven (61.1%) of the participants were men, and seven (38.9%) were women. Six (33.3%) participants reported that they had received no education prior to their enrollment in the workplace literacy program. Five (27.7%) had less than an elementary education, and seven (38.8%) had less than a

Table 1: Demographic characteristics of participants

SOCIODEMOGRAPHIC CHARACTERISTICS	TOTAL # OF PARTICIPANTS	PERCENTAGE OF PARTICIPANTS (%)
Gender		
Male	11	61.0
Female	7	38.8
Age Group		
18-26 years	6	33.3
27-36 years	6	33.3
37-64 years	6	33.3
Marital Status		
Married	11	61.1
Single	7	38.8
Education		
None	6	33.3
< elementary	5	16.6
< high school	7	50.0
Class enrolled		
ESL	10	55.5
GED	7	33.8
Citizenship	1	5.5
Family Role		
Provider	11	61.1
Supporter	7	38.8
Religion		
Islam	18	100
Other	0	0

high school education. Out of the 18 participants enrolled in classes, ten (55.5%) attended ESL class, seven (44.4%) attended GED class, and one (5.5%) attended citizenship class. Eleven (61.1%) of the participants were married, while seven (38.8%) were single. Eleven (61.1%) participants described their households as large, while seven (38.8%) described their households as small. Eleven (61.1%) of the participants described their roles in the family as providers, while seven (38.8%) of them described their roles as supporters. All 18 (100%) participants were of the Muslim faith and practiced Islam.

Impact of Workplace Literacy Program on Size and Strength of Ties in Social Network

Impact on network size. We examined impact of participating in workplace literacy program on the size of participants' social network by calculating/counting and comparing the total number of contacts with whom a participant established social relationships with before attending classes and after or as a result of attending classes. The total size of existing

Table 2: Descriptive Statistics of Network Size across Social Relationship Types

NETWORK SIZE – MEAN		
Relationship Type	**Existing**	**Acquired**
Family	5.05	0.11
Close Friends	3.16	1.16**
Co-workers	2	2.44**
Neighbors	2.38	1.39**
Acquaintances	1.5	1.44**
Gender	**Existing**	**Acquired**
Men	13.8	5.54*
Women	14.5	8.14*

*P< 1 statistically significant level

**P< 0.05 statistically significant level

social network was 254. Per an individual, the maximum existing social network size was 21, while the minimum was 8. The mean and median values of participants' existing social network size was 14, respectively. The total size of the networks increased by 118 contacts, a 47% increase. The maximum number of newly acquired contacts was 9 and the minimum was 2. The mean and median values for the acquired contacts were 6.5 and 6.0 respectively. We assumed that a participant acquired a large network if their network size increased by at least six contacts. More than half of the participants (61%) acquired a large social network, 45% of them were men, and 55% of them were women. 86% out of all women had a large social network size compared to 45% of the men. Hence, as a result of classes, women acquired more contacts when compared to men.

Before attending classes, relationships with family/relatives accounted for the bulk of participants' social network contacts (36%); while relationships with co-workers and acquaintances accounted for a smaller proportion of their existing network contacts (14% and 11%, respectively). However, as a result of attending classes, participants reported more contacts in their non-familial/kinship relationship types; and relationships with co-workers and acquaintances constituted the majority of their acquired network contacts (37% and 22% respectively); while family relationship was the least impacted with the smallest proportion of contacts listed (2%). Relationships with neighbors and close friends were also positively impacted as a result of attending classes (21% and 18%, respectively).

We conducted a Wilcoxon Signed Rank (non-parametric) test to examine whether the differences between existing and acquired network

size across relationship types were statistically significant. While the difference in the size of family relationships is not significant ($Z = 0.5$; P value = 1.00); the differences in the number of contacts across all other relationship types are significant (close friends - $Z = 39$; P value < 0.0005; co-workers - $Z = 76.5$; P value < 0.0001; neighbors - $Z = 60$; P value < 0 .0001; and acquaintances - $Z = 45.5$; $Pv < 0.0002$).

Impact on tie strength. We measured tie strength by combining participants' (coded) responses to questions regarding their frequency of interaction and reciprocity with their contacts existing before they participated in classes and acquired as a result of participating in classes. We assume that ties are stronger where there is frequency of interaction and reciprocity between the participants and their contacts (Granovetter, 1973). Conversely, ties are weaker when there is less interaction and not as much reciprocity or exchange of resources between the participants and their contacts (Marsden & Campbell, 2012).

For the reasons above, we assigned numerical values (from a scale of 1 to 4) to each combination of coded responses according to their presumed effectiveness in indicating/ measuring tie strength; and then we transformed the scale items into categories of tie strength (Retzer et al., 2012). For instance, we assigned the highest value of "4" when the frequency of interaction is coded "often," and exchange of resources is coded "two way;" we assigned the lowest value of "1" when the frequency of interaction is coded "not often," and exchange of resources is coded "one way."

Categories of Tie Strength in Participants' Social Networks

We identified four categories or dimensions of tie strength which we characterized as:

1. **Strong ties** - **"often** and **two way"** - i.e. when the frequency of interaction between the participant and the contact is **"often,"** and exchange of resources is **"two way"** (Granovetter, 1973).

2. **Intermediate strong ties** – **"not often** and **two way"** – i.e. when the frequency of interaction between the participant and the contact is **"not often"** and exchange of resources is **"two way"** (Retzer et al., 2012).

3. **Weak ties** – **"often** and **one way"** – i.e. when the frequency of interaction between the participant and the contact is **"often"** and the exchange of resources is **"one way"** (Marsden & Campbell, 2012).

4. **Latent ties** – **"not often** and **one way"** – i.e. when the frequency of interaction between the participant and the contact is **"not often,"** and the exchange of resources is **"one way"** (Haythornthwaite, 2002).

By means of cross tabulation and chi-square analysis, we calculated, and compared the different categories of tie strength across participants' existing and acquired social networks. At a 0.1 or 90% significant level, we found evidence of a relationship between the tie strength in the existing and acquired social networks ($Chi^2 = 6.59$; D.F = 3; p value = 0.086). All four categories of tie strength – strong (80.6%), intermediate strong (4.9%), weak (5.9%) and latent (8.6%) - were represented in both existing and acquired social networks, although in various proportions. Overall, strong ties constituted the largest category of tie strength in participants acquired social network (75%) and shall be the center of discussion.

Discussion

Overall, our findings support the hypothesis that participation in learning positively impacts social capital development amongst economically/educationally disadvantaged social groups, such as low-income Somali refugee workers. Participation in classes increased the size of participants' social network through their acquisition of non-kinship relationships such as close friends, co-workers, neighbors, and acquaintances. Participants' relationships with co-workers (who were in most cases classmates) accounted for most of their newly acquired contacts. In addition, women acquired more contacts when compared to men. A possible explanation for this difference is that women may be more likely than men to engage in frequent social interactions and activities (McDonald & Mair, 2010).

Although attending classes had no significant impact in the size of family relationship, however, few participants (22%) reported that taking classes enhanced the quality of their relationships with family members, due to the support they rendered. For instance, one of the participants claimed:

> Taking classes has helped me to find a different way to interact with my family/relatives and close friends. For instance, I baby sit my sister's kids sometimes and I have to speak English to them because they understand that perfectly, even more than me (Habiba, woman, 21, GED).

In as much as participant's existing social networks constituted mainly of strong ties with family and close friends. Our analysis, however, indicates that participation in classes fostered the emergence of strong ties predominantly with co-workers (95%). We found evidence that taking classes facilitated frequent social interactions which triggered reciprocal relations between participants and their contacts. For instance, several participants admitted that on account of participating in classes they became more socially engaged with their peers. As a result, they were more willing/motivated to render and request specific support from them, and that strengthened their relationships. One participant recalled:

> Class has made me more social, it helps me to understand people outside the job, and who are not Somali. Also, I am like a teacher's assistant in class. I help to break down some of the learnings for the other students who are a bit slower than myself. This brings us closer and helps to maintain the relationship and this would not have been possible without the classes (Usaru, man, 36, citizenship class).

Regardless of cultural and sociodemographic characteristics such as ethnicity, religion or gender, the classrooms created avenues for the development of strong networks for mutual support among individuals. This fostered solidarity, and enhanced access to tangible support that were unlikely to be available in their existing kinship network. Such support was instrumental in assisting individuals carry out their daily activities, such as getting a ride to work, assistance with homework etc. For instance:

> Ktoo, the Burmese guy who is my friend and co-worker, whom I didn't know so well before classes ..., he and his brother promised to always give me a ride to class. They have also helped me a lot in my studies because we learn from each other. I would not have got all the help that I get from them because before classes we were not close enough for me to ask for certain favors or assistance such as a ride, but as a result of attending classes together, we have each other's phone number ... (Saber, woman, 28, GED).

To this end, evaluating social capital outcomes of workplace literacy programs, based on changes in the structure of social networks, reveals the various ways in which classes structured opportunities for the formation, expansion and strengthening of relationships, thereby creating and enhancing access to resources/support that otherwise might have been difficult or impossible to access.

Key Factors Influencing the Structure of Social Networks

Participant's responses provided some insights into some factors that may have contributed to the changes in the structure (size and strength of ties) of their social networks. Our analysis clustered around four themes namely: literacy/language proficiency, shared interests, mutuality, and trust.

Literacy and Language Proficiency

Participation in classes improved participants' communicating skills, and that played a significant role in the formation, expansion and strengthening of new relationships. Most (94%) of the participants attributed their ability to form new friendships to the improved communication skills they acquired from taking classes; and this was irrespective of the type of class enrolled in. For instance, a GED student recalled:

> My ability to speak English has really helped me to interact with people that are not only from Somalia, but other places and we can all speak English. I communicate now with a lot of people because of English ...This would not have been possible without attending class. After class I became more friendly and outgoing. I am able to talk to a lot of people at work and I speak more in general. I now know more coworkers that are not from Somalia, than I used to (Saber, woman, 28, GED).

To the extent that participants were able to meaningfully communicate with their peers in the dominant spoken language, minimized communication barriers, alleviated vulnerabilities, and thus reinforced solidarity. For instance, one of the participant's described how her ability to communicate coherently in English language strengthened her relationship with a co-worker from a different ethnicity, and thus enhanced her access to useful support:

> Lynda my co-worker and a Hispanic lady said she didn't approach me initially because she didn't think she could communicate with me. When I approached her and spoke English to her she was surprised, and then we became friends...For example, there was a day I fell down, she took me to the nurse and stood as a witness, without her help I would have been severely injured. And subsequently we became close friends. She was able to help me because I could understand her question and speak to her. I was able to interact with her (Hamsaphat, woman, 21, GED).

Consistent with studies that have established a link between literacy development and self-confidence (Tett & Maclachlan, 2007), we found that participant's ability to communicate effectively had a remarkable impact on their confidence levels; which motivated them to socialize with individuals who were different in outlook, interests and/or race. Consequently, promoting opportunities for the formation of weak ties, and expanding their networks. As revealed in this testimony:

> Now I have more confidence than before because I am taking English classes and because I can speak some English even though not so much I like to talk to white people, and I like to talk to people that are good. (Nurtu, man, 26, ESL)

Thus, the more proficient participants were in communicating in English, the more confident they were, and the less barriers they encountered in expanding their networks. Needless to say, in addition to limiting an individual's ability to form, expand or strengthen their social networks, literacy and language deficiency may create formidable challenges to the expansion of an individual's positive sense of self, and potential. As a participant described:

> The people in my class mostly Mexicans and so there are language barriers ... I only speak to the ones who understand me. For instance, I tried to talk to my supervisor but he couldn't understand me ... I am handicapped, and I can't make much friends and participate in activities because I cannot really interact and communicate because of the language barriers (Jada, man, 37, ESL)

Shared Interests

Literacy and language proficiency were not the only elements influencing the structure participants' social network. The establishment of shared interests was also found to be one of the key elements influencing the formation of strong ties. Classes served as a meeting point for individuals who shared similarities along unique dimensions such as minority status, occupational backgrounds, religion, education level etc. Thus, consistent with the homophily principle (McPherson et al., 2001), our analysis revealed that participants were more likely to socially interact and establish strong ties with their classmates based on shared similarities, interests, or experiences. Several participants claimed that their relationships with peers were, for the most part, built and strengthened as a result of having shared interests, and that triggered feelings of solidarity and cooperation amongst them. For instance:

> Attending classes has helped me to be closer to some of my friends. For instance, Halimo, Zainab, and Abdi are my close friends who I met in school because we take classes together, we also speak the same language - Somali, and we face the same struggles of trying to make it each day ... We pray together, and we have mutual understanding. This makes us closer, and because we are there for each other... (Saheed, man, 41, ESL).

Therefore, participation in classes set the background for establishing strong ties based on shared interests. In addition, the setting in which classes took place also shaped the nature and type of resources accessible through their strong ties. This in turn impacts their social capital development.

Mutuality

Mutuality was also key to establishing and maintaining strong ties. Mutuality suggests an ongoing interdependence which refers to the state of being reliant and dependent upon one another for assistance or support (Fehr, 2008). Hence, the concept of mutuality is built upon meaningful social interactions, and reciprocal relations. In view of this, we found that the social settings in which learning occurred enabled participants to become more familiar with each other; and the more familiar they were, the more likely they were to engage in reciprocal relations. For instance, participants revealed that participation in classes provided the context for the credible flow and exchange of resources or support, essential for their stability and daily survival.

> Taking classes has helped my relationships ...We talk to each other a lot, my friends call me and I call them back ... we use social media like WhatsApp, we play together sometimes and we also eat together ...because we are available for each other...so our relationship gets stronger...For example, I help Nuru to interpret or translate in English, when he wants to pay a bill or rent. I also help Ahmed especially when he is doing groceries and cannot communicate with the sales associate, and this makes us closer (Hazzah, man, 21, GED).

Trust

Trust can be defined as the positive expectation of goodwill (Glanville & Paxton, 2007); and is created through reliable processes of exchange and expectation (Adler & Kwon, 2000). When trust is low, social isolation is high, and the potential for reciprocal relations is weakened. In other words, one of the reasons why individuals socialize and engage in collaborative activities is because there is a certain degree of trust established and sustained. Our analysis revealed that participation in classes engendered trusting relationships among participants and their network member. Moreover, trust was key to fostering collaborations, and strengthening relationships. For instance, one participant explained:

> The class is pretty diverse, but we all have the same goal which is learning. The class allows me to interact with all people from Somalia, Mexico, and Burma. We understand each other at work so it is pretty nice to understand each other in class as well. The class provides a place for us to interact with people and this helps us build trust, this helps us to be closer and help each other when in need (Usaru, man, 36, citizenship classes).

In all, participants' interactive experiences and mutual understanding achieved in the classroom environment built trust, which in turn has not only created a strong basis for establishing friendships and collaborations but has also fostered feelings of security and reliability, thereby, enabling them to act together more effectively in pursuit of their shared objectives. In our study, trust appears to be antecedent to the formation of relationships, as well as a consequence of the maintenance of social relationships.

Conclusion and Implications

Workers from disadvantaged groups, especially international refugees and low-skilled immigrants, are not only disadvantaged by their lack of literacy and skills - human capital, but also by their limited access to social capital. Traditionally, employers have an incentive to invest in workplace literacy programs to optimize their human capital resources while maximizing organizational productivity, competitiveness, and profitability (Clymer, 2011; Descy & Tessaring, 2005; Singh & Mohanty, 2012). The findings of this study are significant in that they contribute to the emerging literature suggestting that workplace literacy programs extend beyond the economic effects to include other non-economic outcomes (Desjardin & Schuller, 2007; Hartley & Horne, 2006; Taylor et al., 2012). Specifically, they support the importance of creating opportunities for literacy development as a way to provide an important tool for breaking down barriers to social capital development among economically/educationally

disadvantaged groups, which consequently bridges the gaps in social inequality.

Fundamental to the development of social capital is the ability of individuals to socially interact in meaningful ways and engage in collaborative activities or social exchanges. However, given their low levels of literacy and language proficiency, low income Somali refugee workers are restricted in their ability to meaningfully interact in ways that may positively influence the structure (size and tie strength) of their social networks. In this context, our analysis suggests that among low income Somali refugee workers participation in workplace literacy programs positively impacts the structure of their social networks, i.e., their social capital. Classes provided the social context for the establishment, strengthening and maintenance of non-kinship strong ties/relationships, predominantly with co-workers/classmates. Their newly acquired relationships proved effective for accessing useful resources that assisted participants in carrying out their daily activities, such as, transportation, companionship, studying/learning assistance etc. In addition, the potential for expansion and/or strengthening of relationships was influenced by certain key factors such as, literacy/language proficiency, shared interests, mutuality, and trust. Alternatively, changes in any of these factors may likely affect the structure (size and strength of ties) of their network, and social capital development. Our findings are consistent with prior studies (Ballati et al., 2006; Tett & Macalachan, 2007; Desjardin & Schuller, 2007) that have been able to establish a link between learning and social capital development in the context of disadvantaged groups.

This study is of particular importance in the light of Title II of the Workforce Innovation and Opportunity Act (WIOA, 2014) which focuses on evaluating literacy programs solely on

employment and productivity– conceptualized as human capital development. In view of our findings, we suggest that the WIOA standards for evaluating workplace literacy programs should be revised and broadened to include the potential for social capital development, conceptualized as the structure (size and strength of ties) of social networks accessible to an individual(s). By doing so, the workforce literacy programs may be able to strengthen its programming, develop approaches that are potentially tailored to meeting the social integration needs of the workers, and better and more holistically document progress of the individuals in the program.

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Research Article

Improving the Comprehension and Vocabulary Skills of English Language Learners With Content Integrated Language Instruction for Adults

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Abstract

We have developed a program called Content Integrated Language Instruction for Adults, incorporating research-based practices in vocabulary and language instruction to facilitate a deep and broad understanding of complex content. A subset of words critical to comprehension of the subject matter is covered in each lesson, using group discussion and extensive writing as well as utilizing contextual clues and doing morphological analysis. We have implemented this curriculum with two cohorts of English Language learners studying U.S. history and civics. There was significant growth in both vocabulary (for intentionally studied words, incidentally encountered words, morphologically complex words) and comprehension of the content.

Keywords: vocabulary, reading comprehension, academic content

According to the American Community Survey data, in 2017, there were 247 million adults living in the United States. Of those, 52 million or about 21.5% reported speaking a language other than English at home (U.S. Census, n.d.). For some of those individuals, limited English proficiency is a serious barrier, affecting their access to community resources, job prospects and in general, their participation in the society. Thus, the challenges faced by this group are not only a specific educational issue but also a broader social justice issue. Adult education classes in communities play an important role in removing this barrier. In fact, according to NCES (n.d.) data,

in 2015, 1.5 million adults were enrolled in adult education programs in the United States. Of those, 46% were in English Language (EL) classes

In EL classes, the participants tend to have very different backgrounds. Some are recent immigrants with different levels of education and proficiency in their first language (L1). Some, especially Spanish speakers, who have been studied more systematically, are highly literate in their L1. However, their low literacy levels in English may overshadow their existing first language (L1) literacy background. Recent immigrants from South East Asia or East Africa who have escaped from war and lived in camps for many years are less likely to have formal education and do not have strong literacy skills in their L1 (Burt et al., 2003; Condelli et al., 2009; Purcell-Gates et al., 2002; Strucker & Davidson, 2003).

In addition to the diversity in their backgrounds, there is also wide variability in the learners' reasons for enrolling in EL classes, from basic survival needs (e.g., to get access to food, clothing, shelter, medical care) to needs such as employment (e.g., find a job or advance in a job) and participation in social and political institutions (e.g., further continue their education or become a citizen) (Graham & Walsh, 1996; National Research Council, 2012; Skilton-Sylvester, 2002).

These varied goals suggest that for EL learners, developing their language skills is a means to other ends. Since language learners need to understand complex information (on topics such as health, finance, civics, law, math and science), language instruction cannot be divorced from academic content. Thus, effective EL instruction programs need to integrate both language and content knowledge development and pave the way for learners' further educational and vocational efforts (Ewert, 2014). In this paper, our

goal is to first describe how language instruction can be integrated seamlessly with specific content instruction to develop both vocabulary and comprehension proficiencies of adult EL learners, and then discuss the evaluation of this approach's effectiveness.

Literature Review

Language comprehension, especially reading comprehension, is a key proficiency that forms the foundation for all aspects of adult education, including preparation for post-secondary education, lifelong learning, workforce training, as well as EL development. Decades of research in cognitive and educational psychology suggest that to comprehend complex content, all learners (whether reading in their L1 or L2) need both a strong vocabulary and some background knowledge about the topic (Graves, 2006; Kintsch, 1998; McNamara et al., 2007; Perfetti & Hart, 2002; Van den Broek et al., 2005).

Vocabulary

When examining the literacy skills of native and nonnative speakers in adult education classes, it has been found that compared to their native-speaking peers, nonnative speakers performed well on decoding tasks. However, they struggled with vocabulary and reading comprehension (MacArthur et al., 2010; Nanda et al., 2010; Strucker et al., 2007).

Vocabulary is an essential component of oral and written language comprehension. Research shows that if the number of unknown words is increased in a text (by replacing the low frequency words with nonwords and making the rest of the words very high frequency), comprehension suffers (Hsueh-Chao & Nation, 2000). According to Grabe and Stoller's (2002) estimates, one needs at least 3,000 words to read independently in L2.

For academic texts, this number is considerably higher. Zareva et al. (2005) found that roughly 9,000 words are needed to comprehend a college-level academic text. However, not only the breadth but also the depth of vocabulary is related to reading comprehension. Perfetti and Hart's (2002) Lexical Quality Hypothesis states that a rich, stable and integrated word knowledge--including orthographic, phonological, syntactic and semantic components--facilitates word recognition and comprehension. In other words, knowing how a word is written, pronounced, and used in different contexts, as well as how it relates to other concepts, are all part of this integrated and rich lexical representation. For both native and nonnative speakers, high-quality lexical representations include different uses and nuances of a word, understanding where the word is appropriate and where it is not. One of us remembers a rude email written by a (native speaker) student who apologized for the "quaint email" he wrote. He did not realize that *quaint* has a connotation that is more than the dictionary meaning "unusual." Its meaning also includes the dimensions of attractiveness and old-fashionedness, neither of which, by the way, were present in his email.

Vocabulary instruction that aims to build rich lexical representations--which include the various components described above as well as explicitly teaching vocabulary--has been shown to produce significant improvement in word knowledge and comprehension for both monolinguals and EL learners (Carlo et al., 2004; Crosson et al., 2019). However, vocabulary develops not only through explicit teaching, but also incidentally, as words are encountered in books, media and conversations. Therefore, exposure both inside and outside of the classroom is essential. In addition, learners need to have some strategies for figuring out on their own, the meanings of the words

that they encounter. There is also a reciprocal effect of comprehension on incidental vocabulary development. Better understanding of the text surrounding an unfamiliar word helps a learner to infer that unfamiliar word's meaning more easily (Pulido, 2004).

Studies with children and adolescents in formal schooling indicate that although oral communicative proficiency develops relatively rapidly, academic language requires several years of study because of its decontextualized nature, formal structure, and specialized vocabulary (Baumann & Graves, 2010; Nagy & Townsend, 2012; Schleppegrell, 2004). To use examples from our program discussed in this paper, academic language requires understanding concepts that may not be immediately present in one's everyday life (e. g., *Abraham Lincoln*); utilizes special connectives (e.g., *in order to*) and content-specific jargon (e.g., *legislative*) and includes many morphologically complex words (e.g., *disagreement*). Development of academic language has not been systematically investigated with adults, but it is reasonable to expect a pattern similar to that found with children. The majority of adult EL learners, especially if they were born in the United States, report having good speaking skills, but on NAAL tests, only about a third have scores showing literacy beyond basic levels (Wrigley et al., 2009), indicating struggles with academic language.

Background Knowledge

Decades of literacy research has shown that in addition to vocabulary, comprehension also involves the integration of textual information with the reader's pre-existing knowledge, beliefs, and opinions (Rapp et al., 2007). The more one knows about a topic, the better one comprehends the material (McNamara et al., 2007). For both

L1 and L2 speakers, comprehension of academic content is challenging because academic texts do not have the contextual and experiential support that accompanies everyday communication. New academic content may not be easily comprehended if there is not enough background knowledge to provide a framework in which to situate the new information. That is why for adults, background knowledge was shown to be a significant predictor for reading comprehension (Alamprese, 2009).

For EL learners, background knowledge also includes a cultural component. Lack of cultural knowledge has been shown to hamper reading and listening comprehension of young EL learners (for reviews, see Droop & Verhoeven, 1998; Lesaux et al., 2010). Studies with college students learning a second language also point to the importance of cultural knowledge (Brantmeier, 2005). Finally, as Zareva et al. (2008) noted, advanced EL learners had very rich semantic networks in English, but the networks were qualitatively different from those of native speakers. This indicates that cultural experiences shape how the word associations are created. These data highlight that cultural knowledge needs to be part of the discussions on understanding vocabulary proficiency.

Effective Practices

Research with monolingual and bilingual children have clearly identified the components of effective vocabulary and reading comprehension instruction for complex academic content. Given the existing research on the importance of vocabulary, background knowledge and comprehension of complex content, we developed a curriculum named Content Integrated Language Instruction for Adults (CILIA) to develop these skills of adult EL learners. The curriculum of CILIA was based on effective practices reported

in empirical studies. It must be noted, however, that most of these effective practices have been discovered in studies with native and nonnative speakers in elementary or middle schools, or with college students in foreign language classrooms. As far as we know, there is a dearth of systematic interventions on vocabulary and comprehension of EL learners in adult education settings.

Research Questions

The goal of this paper is to discuss CILIA and present data to address these questions:

1. How does vocabulary and comprehension instruction that is fully integrated with academic content affect the learning of individual vocabulary items, as well as the understanding of the complex content?

2. How do students perceive such an approach?

The program was designed to facilitate EL learners' language development, within the specific content of American history and civics. This content enables the learners to participate more fully in the United States, including following a path to citizenship. In Study 1, we describe the first implementation and evaluation of the program. In Study 2, we describe the second implementation and evaluation of the program in which a control group was included.

Characteristics of CILIA

Even though their targeted learners may differ, effective vocabulary and content interventions have several common characteristics (Crosson et al., 2019; Crosson & Moore, 2017; Francis et al., 2006; Lesaux et al., 2010; Levesque et al., 2018; Marulis & Neuman, 2010; Nash & Snowling, 2006; Neuman & Wright, 2014; Pollard-Durodola et al., 2011; Roediger & Karpicke, 2006; Stahl, 2003; Silverman et al., 2014). Acknowledging the specialized nature of academic language and its interrelatedness with

content-area knowledge, we have incorporated the following characteristics of effective instructional programs into the design of CILIA:

1. Promoting a deep understanding of a relatively small number of critical words that are selected carefully and deliberately: In contrast to the usual practice of facilitating a basic familiarity with a large number of words, we have included high-utility words that are crucial to understanding history and civics (e.g., *domestic, judicial, approve, colony, representative, permit….*) and words that signal important relationships as connectives or action verbs (e.g., *make sure, such as, wide variety of….*)

2. Providing explicit instruction: Our goal was to facilitate a deep, multifaceted understanding of each word by providing definitions, L1 translations, relevant examples of usage from everyday life, and from different cultures represented in the classrooms.

3. Incorporating a variety of modalities: There were reading, writing, listening, speaking, as well as multimedia activities in instruction, and in assessments. The course was writing intensive as the learners wrote summaries of the texts before and after instruction (Study 1). Learners also completed various homework assignments expressing their thoughts on a topic (e.g., *How would history change if native Americans did not help the settlers?*)

4. Developing a rich knowledge network to facilitate connections among (a) prior knowledge, (b) new content knowledge and (c) the specific vocabulary: To accomplish this, before studying the texts and the targeted vocabulary items in them, first there was activation of prior knowledge and a discussion of the key concepts, using learners' existing knowledge (e.g., *What is a colony? Was your home country ever a colony?*).

Then, in an iterative process, the new content was covered through readings, class discussions, exercises, and internet searches, followed by the study of the new vocabulary items within that conceptual framework. This new content, including the new vocabulary was, in return, integrated into learners' existing knowledge network, thus updating and possibly enriching this network. To give a concrete example, before learning the specific meaning of "*executive,*" the three branches of government were discussed, and this content provided the scaffold for the new vocabulary item. Through this process, the learners may initially understand the term within the familiar political system from their countries of origin. However, as the content describing the U.S. government is introduced, the definition of the term "executive" is now interpreted within the structures of different political systems.

5. Providing multiple exposures to the words in varied contexts: The goal was to provide opportunities to fine-tune a word's meaning, or its different meanings, by illustrating where and how it is used. (e.g., some words were deliberately included in two different texts, other words were used in various sentences (e.g., *executive* of a company vs *executive* branch in government or *human rights* versus *right and wrong*).

6. Providing the learners with the analytic tools and strategies to understand the roots of words and their different morphological forms (inflections, derivations): There was explicit discussion of vocabulary development strategies such as the analysis of common affixes (e.g., *in- dis- -ment, -er*) and the use of contextual clues to infer an unfamiliar word's meaning.

In addition, given the characteristics of adult EL learners, our program also included the following dimensions:

7. Encouraging collaborative work: Learners read sections of text together and answered questions in small groups to interact and learn from each other. This also developed camaraderie in the classroom and provided opportunities for social interaction, thus making the classroom a fun and supportive environment.

8. Using learners' first language and cultural experiences: The past experiences of adult learners were acknowledged and valued. The learners compared and contrasted the new American-based information with that from their country, which made the information more vivid and provided a framework to better retain and integrate the new knowledge (e.g., *Does your home country have a president? What are the responsibilities of that person? Is it similar/different to the case in the United States?*)

9. Conducting frequent pre- and post-reading assessments and self-checks: As recent studies show, frequent tests not only help the instructors to see how the students are doing but also provide another learning opportunity, hence there were frequent short quizzes.

Lesson Structure

The CILIA curriculum involved the deep analysis and comprehension of six civics-American history modules. Each module included the texts as listed below:

1. A small business; Neighborhoods in Philadelphia

2. Philadelphia history; Benjamin Franklin

3. The Three Branches of Government; State Governments

4. Jamestown and Plymouth; the Independence of the Colonies

5. A Nation Divided and a President Lost; the Expansion of the United States

6. Democracy and Constitutional Rights; Martin Luther King and the Civil Rights movement

The EL course lasted 3 months, with classes meeting twice a week for a total of 3 hours each week. Each of the six modules was covered across 2 weeks. In other words, the texts were divided into two logical parts (see above) and each week, one half of the material was covered. During each week of class, the texts were studied with vocabulary instruction integrated within the content of these texts. Each class period included the components of instruction listed below, but the components varied in duration depending on the content and the learning objectives for that particular day:

1. Reviewing the homework

2. Activating prior knowledge and the conceptual framework, before introducing the new passage

3. Teacher reading the new passage aloud

4. Students reading the passage aloud (in pairs)

5. Pre-checking the understanding of the text by asking learners to write a summary

6. Explicit vocabulary study – reviewing the conceptual framework, and analyzing the pre-selected critical vocabulary items in the passage from multiple angles: considering the explicit meaning of the vocabulary item and noting its use within the text; analyzing its morphological structure and generating other related items, situating the vocabulary item within the overall conceptual framework and "updating" the learners' mental representation of the text

7. Students rereading the text silently on their own

8. Post-checking the understanding by asking learners to write a second summary of the text

9. Assigning homework to encourage deep comprehension of the passage, and the application of the new vocabulary items

A more detailed discussion of word selection strategies and specific classroom activities are presented in Sagar et al. (2015).

Study 1

In Study 1, we report the results of the first implementation and evaluation of CILIA.

Participants

There were complete data from 26 learners in three classrooms. These adults came from 17 countries across the world. With two exceptions, all had at least a high school education in their native country, although the quality of the education may not have been consistently high. They were newcomers to the United States and self-reported low to medium levels of English proficiency. Some had home languages (e.g., Spanish, French) that were more similar to English than others (e.g., Wolof, Arabic, Chinese). Their ages ranged from 19-68, with 10 learners younger than 30, 12 learners aged between 31-59, and one learner aged 68.

Materials

The following tasks were used to evaluate the program:

1. **Vocabulary test:** The same vocabulary test was given at the beginning and the end of the course, with an interval of three months. The test had 60 multiple choice questions, and included three types of items:

a. Intentional = 38 words that were in the texts and were explicitly studied in the classroom

b. Incidental =12 words across the modules, that were encountered but not explicitly discussed in the classroom

c. Morphological = 10 words that were derivations from a given root word using the suffixes discussed in the classroom

2. **Quizzes:** After every two modules, a quiz was given to test the vocabulary and content of those units, for a total of 3 quizzes. [An example is given in Appendix A.] In each quiz, the vocabulary component consisted of a cloze task, a paragraph with 10 words missing. The goal was to see how the words were used in a meaningful connected text. A word bank of 12 words was provided at the bottom so that the participants could select the appropriate word from that list to fill in the blank. The vocabulary test was scored leniently. For example, the accuracy of inflections was not considered. In some instances, another word could fit the blank and that was accepted, but of course that meant another blank could not be filled. The content section of the quizzes asked very specific questions on the material that was studied. The vocabulary sections in all quizzes had a maximum score of 10. For content sections, the maximum scores were 10, 14, 16, for the first second and third quizzes, respectively.

3. **Student evaluations of the program.** At the end of the program students filled an anonymous survey which asked about their views on the strengths and weaknesses of the program. The first four questions asked them to provide a rating from 1-5 on different aspects of the program. The remaining short answer questions asked about their favorite

story, what activities we should keep, which we should eliminate and any thoughts and ideas they wanted to share.

Results

Table 1 summarizes pretest and posttest accuracy scores on the vocabulary test. The accuracy was defined as proportion correct. [The intentional items had 37 as the maximum possible score, because there was one incorrect item on the test, and that was omitted from the analyses]. The pre- and post-test scores were compared using t-tests, with alpha levels corrected for four comparisons (alpha used =.05/4=.013). Despite the short instruction duration and the heterogeneous learner backgrounds, the analyses indicated significant growth in all three categories of vocabulary items, as well as in the total score. The test scores as well as the t-test values are given in Table 1.

Table 1: Proportion of correct responses, means (standard deviations), t-test values of the different types of vocabulary pre- and post-test items in Study 1

	PRETEST	POSTTEST	t-test , df=25
Intentional words	.60 (.19)	.71 (.18)	5.45*
Incidental words	.69 (.22)	.80 (.19)	4.37*
Morphological analysis	.55 (.31)	.71 (.25)	3.14*
Total	.62 (.19)	.72 (.190	6.52*

$P<.013$

As summarized in Table 2, quizzes represent a measure of what the learners retained about the material covered in class, both the intentionally studied words and the content. The vocabulary section of Quiz 1 was not scored, because one class had the quiz without the word bank given. Quizzes 2 and 3 were scored. Overall, the vocabulary sections indicated 66% and 81% correct

performance, indicating that the majority of the words were now familiar to the learners. On the three content sections, the performance ranged from 57% -77%. Overall, the learners reached average/high average levels of performance and there was a wide variety in the scores.

Table 2: Percent correct on the quizzes in Study 1

	n	mean	sd
Quiz 2 Vocabulary	23	66.1	22.9
Quiz 3 Vocabulary	22	80.9	20.9
Quiz 1 Content	23	57.0	24.2
Quiz 2 Content	22	77.9	24.7
Quiz 3 Content	14	75.0	13.6

n = number of learners

Across the 24 anonymous evaluations, the response was overwhelmingly positive. The average rating and standard deviation are given for each question (maximum=5).

1. How much new information did you learn on civics and American history? With 5= a lot, mean=4.63 (*sd*=0.6)

2. How interesting was the material? With 5=very interesting, mean=4.29 (*sd*=0.6)

3. How easy was the material to understand? With 5=very clear, mean=4.33 (*sd*=0.7)

4. How much new vocabulary did you learn? With 5=a lot, mean=4.46 (*sd*=0.8).

Interestingly all six texts received some votes as the favorite for a student. The most popular text was "Colonies" with a vote of 6. Three participants reported that all texts were favorites.

When asked about which activities they liked, six reported speaking with each other. Other items mentioned were working in groups, learning about the United States, tests and quizzes that assessed learning.

Except for two learners who wrote "I don't know," all participants said "do not eliminate anything" from the program, even when three learners reported that writing a summary was sometimes boring.

A learner understood what the program was trying to accomplish as s/he wrote: *"I hope we'd read more articles to learn more vocabularies…. learning the vocabularies from the short articles. And from knowing how to use the vocabularies…. Vocabularies are the base for us to communicate with others. I hope we can have the opportunities like this every term."*

Another wrote: *"This course helps me to understand different meaning of same word in different sentences."*

Study 2

In the second implementation of CILIA, there were two major changes. First, a control group was included. Second, in addition to the vocabulary test, there was also a comprehension test given before and after the course was completed. There were also several minor changes, such as correcting misspellings in the materials and reducing redundancies across two of the readings. In addition, pre- and post-check activities now included various types of assessments (multiple choice test, fill in the blanks) rather than always writing a summary because despite providing rich data, writing summaries twice during pre and post checks was found by learners to be cumbersome.

Participants

In the second evaluation study, the experimental groups followed the CILIA curriculum described above. The control groups used the same reading materials, and took the same vocabulary and comprehension tests, but they continued with instruction as usual, instead of following the new program. Both experimental and control groups were from the same adult education center and were taught by experienced teachers.

There were 26 learners from three classes constituting the control group. (One control group was taught by one of the authors of this paper). The experimental group included 35 learners from three classes, taught by two of the authors of this paper. However, one experimental class was suddenly discontinued mid-program by management, thus reducing the experimental group's size to 23. Complete pre- and post-test data were available from 16 learners in the experimental group and 20 in the control group. Age data were available from 24 participants, with five younger than 20, eight between ages 31-40, 10 between ages 41-50, and one over 51. The education level obtained in their home countries was relatively high. In both the experimental and control groups, education data were available from 35 participants and among those participants, except for one learner, all had completed at least 9 years of schooling in their home countries.

Materials

Learners completed the same vocabulary and comprehension tests at the beginning and at the end of the course, with an interval of three months between the two tests.

1. **Vocabulary test:** This test had the same 60 multiple choice questions as in Study 1. (The error in Study 1 was corrected and there were 38 intentionally studied words)

2. **Comprehension test:** This test included 27 questions about civics and American history. Sixteen questions were in multiple choice format, for example:

   What is the Bill of Rights?

   a. Declaration of Independence

   b. The document freeing slaves

c.   Stars and Stripes

d.   The first 10 amendments of the Constitution.

The remaining 10 questions required a short answer [e.g., *Give one reason why the colonies wanted to be free of England*] and the maximum score possible was 40 on the comprehension test.

This cohort also had the same quizzes after every two modules as described in Study 1. Each quiz covered two modules and included both vocabulary and comprehension questions. (The control group did not take these quizzes as they did not follow the CILIA curriculum's sequence).

Results and Discussion for Study 2

The performance on the classroom quizzes is summarized in Table 3 for the experimental group. The reported data are from the 16 learners with a complete vocabulary data set and not others who may have also completed the quizzes. Quizzes assess the learning of the vocabulary and content explicitly covered in class in the previous weeks. The performance levels ranged between 75% - 91% for vocabulary and between from 74% - 89% for comprehension, indicating that the teaching was effective.

Table 3: Percent correct on the quizzes in Study 2

	n	mean	sd
Quiz 1 Vocabulary	11	75.5	32.7
Quiz 1 Comprehension	13	73.8	18.5
Quiz 2 Vocabulary	12	85.8	14.4
Quiz 2 Comprehension	12	88.7	12.7
Quiz 3 Vocabulary	14	91.4	11.0
Quiz 3 Comprehension	13	84.6	15.9

The next analysis compared the experimental and control groups on the vocabulary and comprehension tests that were given before and after the course, with a 2 (Group: experimental vs control) x 2 (Time: pre vs post) ANOVA on each measure. The pre- and post-test scores for the vocabulary and comprehension tests for the control and experimental groups are summarized in Table 4.

On intentional words, there were main effects of Group, $F(1,34) = 6.33$, $\eta^2 = .157$ and Time $F(1,34) = 20.88$ $\eta^2 = .380$. However both main effects were qualified by a significant Group x Time interaction, $F(1, 34) = 4.29$, $\eta^2 = .112$, indicating a larger growth from pre- to post-test scores for the experimental group. On incidental words, there was no such interaction, but both a Time main

Table 4: Means and standard deviations on pre- and post-tests for the two groups in Study 2

	EXPERIMENTAL n=16		CONTROL n=20		ANCOVA
	PRETEST	POSTTEST	PRETEST	POSTTEST	Group main effect on posttest (with pretest as covariate)
COMPREHENSION max=40	18.27 (9.0)	33.87 (5.0)	18.90 (7.4)	28.70 (7.5)	F(1,32) =6.30*
INTENTIONAL WORDS max=38	24.25 (5.2)	30.62 (6.6)	21.05 (7.8)	23.45 (6.8)	F(1,33) = 8.07*
INCIDENTAL WORDS max=12	8.94 (1.9)	10.00 (1.3)	5.90 (3.0)	6.55 (2.7)	F(1,33) = 6.55*
MORPHEMES max=10	5.31 (3.8)	8.37 (1.5)	2.95 (3.7)	4.75 (3.6)	F(1,33) = 9.66*

effect, $F(1, 34) = 7.06$, $\eta^2 = .172$ and a Group main effect $F(1, 34) = 19.10$, $\eta^2 = .360$. This indicated that both groups showed similar levels of growth although the average of pre- and post-scores were lower for the control group. On morphemes, again there were significant main effects of Group $F(1.34) = 10.0$, $\eta^2 = .227$ and Time $F(1, 34) = 18.22$, $\eta^2 = .349$ and no interaction. For comprehension, there was a significant main effect of Time, $F(1,34) = 78.29$, $\eta^2 = .703$, which was qualified by a Time x Group interaction $F(1, 33) = 4.08$, $\eta^2 = .110$.

As the initial ANOVAs show, on some measures the control group may have had lower pretest scores. However, an analysis of pretest scores indicated that only on Incidental words the pretest scores were significantly lower for the control group, $t(34) = 3.51$. On the remaining three measures, the pretest performances were not different between experimental and control groups, all t-tests <1.90.

However, to control for any preexisting learner differences that may exist between groups, an ANCOVA was conducted to compare the post-test scores of control and experimental groups, while using the pretest scores as a covariate. The F-test values are also presented in Table 4 (last column). This analysis compared the posttest levels of experimental and control groups while statistically controlling for pretest levels. Overall, both the control and experimental groups showed significant growth in all aspects of vocabulary and in comprehension. However, the experimental group had significantly stronger growth in all four measures. Despite the limited sample sizes, all group effects were significant, indicating that CILIA led to stronger growth in vocabulary and comprehension scores as compared to the control group, with the pretest levels taken into consideration.

Discussion

The results indicate that this program was successful in building the civics and U.S. history knowledge of the EL learners while developing their vocabulary skills. However, it must be acknowledged that the sample size was small, and the learners in the study had received a relatively high level of education in their home countries. A replication with EL learners with lower levels of education is warranted.

For adults in EL classrooms, vocabulary is a serious impediment to comprehension, especially of complex academic material. Our data indicates that CILIA, a program that integrates a systematic and comprehensive vocabulary curriculum with strong content area instruction, provides an effective approach that is also well-received by the learners. More importantly, the basic principles of CILIA can be easily applied in other contexts. Although we have implemented CILIA with EL learners using civics-U.S. history content, this basic approach can be used with other learner groups in adult education, including native speakers with low levels of language proficiency, because vocabulary and comprehension difficulties present similar challenges for native speakers as well. The program can also be implemented in other content areas such as health, finance, geography, science, and mathematics, and it can be used to improve learners' comprehension of specific materials in the workplace, thus contributing to workforce development.

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Appendix A

An example quiz (vocabulary and comprehension) in Study 1

I. Vocabulary (Fill in the blanks. The correct answers are in italics in the blanks)

We recently had a meeting with Mary Smith, who is our _representative_ in Washington, DC. Mary works hard to help our neighborhood, _community_ and state. _At the same time_ she tries to help the whole country. She is interested in issues _such as_ renewable energy, affordable housing, immigration. There is a new law that is _concerned with_ children of illegal immigrants. Some people believe that these children should leave this country. _However_ these children did not come here by themselves. Their parents brought them and they grew up here. I _demand_ that politicians think about this issue and decide on a _permanent_ solution. The president can _appoint_ a committee to work on this issue. Committee can help politicians _reach_ a solution.

Word bank:

concerned with	such as	appoint	representative	executive	community
at the same time	reach	demand	permanent	however	approve

II. Content

1. Name the three branches of the federal (US) government; one job of each branch and who is in that branch. The first is done for you as an example.

Its Name	One of its jobs	Who is in this branch?
1. Executive	Run the country	President, vice president, cabinet
2.		
3.		

2. Name the first two communities that Europeans formed in Northern America.

   Who helped these new settlers?

3. Why do we celebrate Thanksgiving?

   Why do we celebrate Fourth of July?

Report from the Field

Adult Educators Adopting Technology in Their Classrooms Through Innovation, Collaboration, and Inquiry

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Abstract

Technology is a critical resource in adult education, yet opportunities for ongoing training and support for practitioners are few. This article explores an inquiry-based, collaborative professional development initiative focused on technology adoption, sharing the firsthand accounts of three adult education teachers who participated. Perceived benefits included ways for learners to build English language and reading comprehension skills, and adjustments in teaching practices to encourage increased peer-centered learning. Strategies for technology adoption are also provided through the teachers' examples, which may be useful for practitioners new to technology integration.

Keywords: adult basic education, technology adoption, professional development, digital literacy

Many adult educators are turning to technology as a resource that has potential for anywhere/anytime learning opportunities, meeting learners' diverse goals, and supporting digital literacy. However, using any new technology in the classroom can also present unexpected obstacles, from technical glitches to learners not participating as intended. More opportunities for ongoing professional development and information about best practices for technology are needed in the field (Rosen & Vanek, 2017).

In Philadelphia, the Office of Adult Education (OAE) worked since 1983 to provide professional development and technical assistance to adult education programs.[1] In 2017, we received funding to implement the *PHL Technology in Adult Education Initiative.* The project ran for 18-months and was structured around three 90-day sprints for the nine adult education practitioners who participated to completion, with a focus on ongoing peer collaboration. We also provided support as practitioners developed

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1   As of Summer 2020, adult education services are now a part of the City of Philadelphia, Office of Children and Families.

research questions, collected and analyzed data, and wrote reflections based on their findings.

A collaborative, inquiry-based approach has been used successfully as a way for teachers to advance their practice related to technology (Hobbs & Coiro, 2019). To further highlight the learning opportunities that accrue by sharing knowledge among participants, we employed a communities of practice approach. Communities of practice have been used widely in educational settings and emphasize learning and knowledge creation as a social process (Lave & Wenger, 1991; Wenger, 1998). The research aspect of the project was inspired by the idea of practitioner inquiry, which focuses on knowledge generated by practitioners in their practice (Cochran-Smith & Lytle, 2009). We also drew from general best practices in K-12 professional development, including active learning techniques and time for collaboration and reflection (Darling-Hammond et al., 2017). Finally, certain logistical aspects were informed by a similar initiative (Illinois Digital Learning Lab, 2018).

Participants were teachers and administrators from programs focused on ESL, workforce development, and high school equivalency. The initial phase included recruitment and onboarding, where participants self-selected into teams based on themes they identified: Leveraging Technology Inside the Classroom (1), Technology as a Resource Outside the Classroom (2), and Supporting Adult Learners' Retention (3). During this phase, team members also collaborated on problem statements and research questions, and participants chose a specific technology project. Implementation was structured around the three sprints as well as quarterly facilitated meetings at OAE for the entire group and monthly meetings of smaller teams. While the sprints created a structured

opportunity to iterate with technology over time, the meetings offered a space for participants to troubleshoot, learn from each other's experiences, and collectively analyze data.

The next three sections were written by teachers who participated in the initiative. Each example illustrates how different aspects of the model were applied to integrate technology in a unique context, including mind maps to support informational interviews in a youth workforce development program, the use of texting for new immigrants and refugees, and blended learning for busy restaurant workers.

Mind Maps as a Tool for Critical Thinking (Peta-Gaye Nicole Bullock, Team 1)

I am the training and curriculum manager at PowerCorpsPHL, a workforce development program serving 18-28 year olds disconnected from work or school. I became interested in the *PHL Technology in Adult Education Initiative* because many of the young people we serve do not have strong digital literacy skills or access to technology. I work with the fellows, PowerCorps members in their second phase of the program, and wanted to improve how digital literacy, digital communication, and problem solving were incorporated in the 21st century work readiness training we provide. Additionally, it was helpful to work with peers in Philadelphia facing the same challenges, who could offer insight on creative solutions to integrating technology while reinforcing work-ready skills.

Early in the project, my team decided to focus on how technology could support critical thinking. Therefore, I chose to rely on the Google search engine to help our fellows complete digital mind maps, find professionals in their field of interest, and contact those professionals over email to

request an informational interview. By having them rely primarily on the internet, I hoped to increase their autonomy and ability to solve on-the-job problems. For the informational interview project, I held bi-weekly meetings with the fellows where they are given an agenda and work independently to further their digital literacy.

One of the key lessons that emerged centered around the mind maps the fellows created. The structure of the sprints and the opportunity to get feedback from my team helped me refine my approach. In sprint one, I found the mind maps lacked creativity due to the rigid structure I put in place. During this sprint, I walked the fellows through the process of creating an organizational chart using Microsoft Word, leaving them with only this format to complete the mind maps and asking them to work independently. In sprints two and three, having reflected on the previous sprint and getting feedback from my team, I decided to give them a few lines of written instructions that included the word "mind map," and encouraged them to use Google or other internet resources to find examples, and collaborate with peers. I found that many of the fellows decided to use the chart feature within Google Docs. It was exciting to see their thought process in those mind maps, as the freedom of Google Docs allowed them to be creative and thus produce more detailed mind maps.

A key takeaway in working with adult learners is to find a balance in the amount of support and flexibility provided. This experience also reinforced that I should never assume what learners know (or do not know). Instead, I used a pre- and post-survey that assessed fellows' critical thinking and problem-solving skills, along with their technology use, to ascertain their digital skills and lend support as needed. My advice is to provide adult learners with space to show what

they know, challenge them to use the digital tools to which they have access, and provide support when they are struggling. Recently the alumni speaker for our graduation credited his current full-time employment as a youth advocate to the informational interview project that is now a permanent part of the fellow curriculum as a result of my participation in the project.

Using Text Messages to Boost Learning Outside the Classroom (Charlie Heil, Team 2)

As an English as a Second Language (ESL) instructor at HIAS PA, a non-profit agency providing legal and social services to refugees, asylees and immigrants in Philadelphia, I work primarily with beginner-proficiency learners of English, many of them at preliterate or emergent literacy levels in both English and their native languages. Figuring out ways to integrate digital technology into a class that is completely analogue can seem intimidating, and it is easy to procrastinate without deadlines or deliverables. By participating in this initiative, I had a support network of peers and a structure including sprints and deadlines.

In order to understand their needs better, I observed and talked to my learners about how they were using technology. I noticed that about half had difficulty using their phones to read and respond to text messages, and at least one learner had never used the text feature. This lack of experience with technology can cause challenges for my learners in their daily lives. I felt it was important to add a focus on digital literacy through sending and receiving text messages. I sent out short "homework" questions based on what we had covered in class; for example, "What is she wearing?" or "What's this?" with a picture of a vocabulary word. Learners could choose

whether to reply to the question, and answers were reviewed in class for accuracy. For learners with little print-based literacy, responding to texts could also help them learn the alphabet and become familiar with typing.

As with teaching grammar, it is easy to make assumptions about what beginner learners know. In the case of text messages, I quickly learned that I needed to deconstruct the smaller steps involved in sending a text message, versus assuming my learners would just figure it out. My team faced similar challenges, so we worked together to come up with solutions. For example, in sprint one, the average engagement rate was around 20%. I brought this concern to my peers, who were also experiencing variable participation levels among their learners, and we brainstormed ideas to increase engagement. Thanks to their input, in sprint two, I started checking answers in class, which proved to be a motivating factor. I also prepared a board to track learner participation that I would display at the end of class, giving stars as a reward for completed assignments. I noticed after I started using this board, several learners responded more consistently. Participation by the end of the sprint averaged approximately 40%. Learners who made the effort to engage regularly in the assignments saw significant gains in their response rate and accuracy of replies. One success story was a learner who had never sent a text message becoming one of the most active and consistent participants.

It is important to encourage literacy in all areas: reading and writing on paper and on screen; using pens and pencils, keyboards, and touchscreens; and turning pages and scrolling. It is also important not to make assumptions, given that technology often entails a complex series of steps, especially for individuals who are new to it.

Since the initiative came to an end, we have made digital literacy a component inside and outside the classroom. Every class includes at least one activity where students participate by using their phones, with teachers on hand to help. Communication with students for administrative and pedagogical purposes outside the classroom utilizes a blend of text messaging, WhatsApp, and phone calls.

Engaging with Google Classroom in an ESL Book Club (Jillian Gierke, Team 3)

English for the Restaurant and Everyday Living (EREL) is an adult ESL program supported by the Garces Foundation in South Philadelphia. Learners are recent immigrants from Central and South America between 18-60 years of age seeking better economic opportunities. With most of our learners finding employment in the restaurant industry, our biggest challenge is retention. Frequent changes in work schedules prevent learners from attending classes.

With the opportunity to work on a team with educators also focused on retention, I was able to talk about these challenges and further refine my individual research question. With the support of my team, I decided to focus on online learning options using Google Classroom. I chose to offer an in-person and online blended course for our advanced book club. Previously, the class was only offered in-person for 1 hour per week, and I noticed additional time was needed to scaffold learners towards a more profound understanding of the text. With the addition of Google Classroom, learners can stay connected between classes through online discussion. Therefore, in theory, learners in the book club would attend in-person class meetings with a solid understanding of what took place in the assigned 50 pages of reading and be more prepared to engage in discussions.

During the first sprint, I designated Classroom as a virtual place for learners to have discussions and ask questions outside class. I did not mandate that my learners use Classroom but simply offered it as a resource. I posted resources, notes from class, and videos related to the reading. Unfortunately, learners did not post questions, comment on, or initiate discussion on their own. Needless to say, I was discouraged by these results; nonetheless, after checking in with my team, I learned that a teammate also using Google Classroom had a similar experience.

To increase participation during the second sprint, we decided it was essential to post mandatory weekly assignments related to the assigned reading. This approach was far more successful in encouraging participation. Before weekly in-person meetings, all learners completed a brief multiple-choice quiz on the reading, responded to a writing prompt, and then they responded to their classmates' writing. With this routine, learners were clarifying concepts such as plot before coming to class and, if absent, could participate online.

For the third sprint, I used Classroom with an advanced language class that meets twice weekly. Classroom was used to post content and assignments to review lessons and also to prepare for the next class. Since I did not ask learners to complete nearly 50 pages of reading in addition to the assignments posted on Classroom, assignment completion rates with this class were much higher than with the advanced book club.

Participation in this project over the last 2 years has prepared me to continue meeting the needs of our learners amidst a global health crisis. In response to the COVID-19 pandemic, I transferred all of our classes to Google Classroom. Students have the option to enroll themselves in the appropriate level class in addition to other electives such as book club, a ServSafe food handler test prep course, and others. This is a monumental experience for our learners to have the opportunity to view online learning as a necessity rather than an additional option. Despite such uncertainty in challenging times, there is hope in this experience.

Conclusion

The importance of professional development in adult education rooted in ongoing collaboration and inquiry is underscored by these examples. In addition to strategies to assist with specific issues related to implementation, each practitioner learned that many of the challenges they faced were shared by peers, and through this process received encouragement and motivation to continue. The research aspect of the project also helped individuals to refine their area of interest by developing research questions and uncover assumptions through collecting and reflecting on data. It is critical to consider the unique challenges related to technology adoption, and the need for more professional development to be ongoing, experiential, collaborative, inquiry-based, and practitioner-centered. We hope the information provided can benefit both administrators who wish to implement more effective professional development, and educators adopting technology in their classrooms.

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Forum: Serving Learners with Barriers

(Part 1 of 3)

There Are No *Hard-to-Serve* Learners, Only *Ill-Served* Ones

Erik Jacobson, Montclair State University

Since it was signed into law, the Workforce Investment and Opportunity Act (WIOA) has been the subject of continuing scrutiny. One commonly shared concern is that the evaluation metrics of the Act (e.g., employment, salary, etc.) may incentivize programs to work with learners who will more readily meet expected outcomes (Pickard, 2016). Others suggest this concern is misplaced, pointing to the fact that the Act explicitly notes that the models created for State and program evaluation will be adjusted to recognize the priority given to serving students who face significant barriers (Wilson, 2015). These barriers include low levels of English and/or literacy, disabilities, limited work experience, lack of stable shelter, economic vulnerability and being an ex-offender. Learners who face these barriers are often identified as being part of *hard-to-serve* populations, both in policy documents and in commentary in the field. However, it is unclear what the term actually means. These populations may face difficult barriers, but why do those barriers make them harder to serve than other students? Why are certain populations singled out in this way? What purpose does it serve to attach a pejorative label to them?

Within the language of WIOA, it often seems like the definition of *hard to serve* is tautological in nature – that is, it is defined by the hard-to-serve

populations it describes. In the WIOA Final Rule, it explains how the evaluation process is intended to account for the nature of the student population served in this way:

> the model will increase the performance levels required if a State or local area were to serve lower-than-anticipated percentages of hard-to-serve populations with barriers to employment because it would presumably be easier to serve these individuals. Similarly, performance levels (or targets) would be decreased if a State or local area were to serve a higher-than-anticipated percentage of individuals with barriers, because these individuals are harder to serve. (U.S. Department of Labor and Department of Education, 2016, p. 55866)

In other words, it is more difficult to serve students with barriers that make them hard to serve. This truism does not provide any more clarity on what about those barriers make *hard-to-serve* learners so different from other learners.

In addition to those noted above, the Act presents a number of other potential barriers that can lead to somebody being described as hard to serve, including receiving TANF or other assistance (p. 55841), taking a longer time to achieve a positive outcome (p. 55842), or being foreign born (p. 55866). Again, in none of these cases is it explained why individuals in these populations are harder to serve – it is seemingly taken for granted. The phrasing itself suggests that it is in fact an issue with the learner – something about

them is seen as creating difficulties. However, what about a learner being foreign-born is problematic for a program providing education or training? Why would these students be harder to serve than learners born in the United States? The answer cannot be their need to improve their English skills, since that is the very purpose of English as a second language programs. Because the term is not explained or elaborated on, *hard to serve* is open for interpretation.

For example, one reading of the concept of hard-to-serve learners suggests that there is an issue with the learner's disposition. Consider the connotation of phrases like *hard to please* or *hard to talk to*. If a potential learner does not accept an offer to enroll in a particular program, they may be written off as not wanting help. Why might this be a population level issue rather than one of an individual's personality? Some studies (Willis, 1972) suggest that some populations might be less likely to participate in formal education if they perceive that it does not have their best interests in mind, or if it is part of a system that is tracking them into low-wage and low-status employment. However, describing learners who have doubts about formal education as *hard to serve* would beg the question of why they came to that conclusion. Participation and persistence must be understood as a systemic issue, rather than solely a matter of personal responsibility (Comings, 2009), so understanding *hard to serve* as measure of a learner's affect is problematic.

Another reading of *hard-to-serve learners* implies that there is an issue with the student's skill levels or understanding. The analogy here is to materials that are challenging by their nature, such as when things are described as *hard to work with* or *hard to handle*. In this case, *hard to serve* suggests there is a pedagogical problem created by a student demonstrating some key gaps or limitations. To

use *hard to serve* in this way suggests a deficit model of education in which students are defined by what they are perceived to lack (Bragg, 2016). However, working with any group of learners demands on-going revision of existing curriculum and adapting instructional methods. It is true that some students may require more resources and sustained attention over a period of time but that does not make *them* hard to serve. All students deserve an appropriate education, so applying a pejorative label to student populations who may need more time and resources is also problematic.

Indeed, another reason why learners from certain populations might be described as *hard to serve* concerns the choices programs make with regards to enrollment. Despite WIOA language explaining that variations in students' backgrounds will be accounted for in evaluations, some programs remain concerned about how the skill level of the students they enroll may impact their outcomes, and thus their funding (Jacobson, 2013). In this case, describing a student population as *hard to serve* suggests that it is a question of economics. Given the chance that certain students might have a negative impact on evaluations and the program's bottom-line, a program may decide that it is difficult to justify making the choice to serve them. Used in this way, the term *hard to serve* labels some learners as potential risks, obscuring the fact that it is accountability and funding policies that create instability within programs, not the learners.

Of course, there may be other readings of *hard to serve*, but the three represented above are certainly problematic. What else could it mean? The term appears to be ill-defined at best, and misleading at worst. Why then is it so commonly used? Learners who are unhoused, facing food insecurity or have a disability do not present dispositional or pedagogical challenges that

cannot be overcome, and they do not need to justify their requests for education or training. As with other labels, language that divides people into groups and categories is ideological in nature (Delpit & Dowdy, 2002; Foucault, 1972; Volosinov, 1996). Identifying some learner populations as *hard to serve* is an act of othering (Said, 1978), placing them apart from, and providing definition to, those who are then conceptualized as *typical* learners (i.e., those that are not hard to serve).

A prominent example of the ideological nature of labels and identity is the debate around the term *disabled*, as discourse in the disability rights community has shifted over time (Liebowtiz, 2015). Not long ago, there was a stated preference for people-first descriptions, such as *a person with a disability*, because it was thought to suggest that the individual was not wholly defined by their disability. However, in recent times some people have made a strategic shift back to using the term *disabled person* to describe themselves. They do this in part to assert membership in a particular identity-based community (e.g., I'm Black, I'm a woman, I'm Muslim, etc.) and to call attention to the sociopolitical nature of their lived experience. Indeed, in the social model of disability (Oliver, 1990), an ontological distinction is made between an impairment and disability. For example, a person may have issues with mobility (an impairment), but it is buildings without ramps and sidewalks without curb cutouts that limits their access to the public sphere. People with certain impairments are thus *disabled* by a society that does not provide appropriate services. In contrast to *person with a disability*, the term *disabled* highlights the relationship between the individual and their environment (physical, social, political, economic, ideological). Rather than suggesting an inherent quality of the individual, *disabled* names an oppressive system that does

not respect and attend to the basic rights of people with impairments (Lalvani & Broderick, 2013).

Along these lines, the term *hard-to-serve learners* serves to divert attention from these same types of systemic issues within adult education. If a potential adult learner with limited mobility cannot make it to a program in the United States, the issue is not them, it is a poorly developed infrastructure that does not take their needs into account (National Disabilities Rights Network, 2019). If being unhoused makes it hard to for a potential student to be reached ("They are hard to serve because *we can't find them*"), the issue is not the unhoused, it is the fact that shelter is not being provided (Picture the Homeless, 2015). If being an ex-offender makes it hard for a potential learner to enroll in a training program, we need to consider the ways in which transition is hindered by policies and discourses of incarceration that perpetuate a sense of hopelessness and/or the inevitability of recidivism (Muth et. al, 2016). If receiving aid means that a learner is less likely to succeed, we need to consider whether welfare is actually designed to allow people to do more than just barely survive (Piven & Cloward, 1993). Thus, rather than being *hard to serve*, it is more appropriate to describe these populations as *ill-served* by society.

One more meaning of the term *hard to serve* that has been offered is that it is meant to call attention to the limited resources available for adult education and related social welfare programs. That is, it is difficult to provide services when there is no funding. That is certainly true, but why are certain student populations the ones whose rights to services are circumscribed? It is a question of economic and budgeting priorities, not the nature of the populations in question. Ending corporate tax breaks would free up more than $70 billion

(Gardner et al., 2019). Cuts in the U.S. military budget ($717 billion in 2019) could fully fund a number of essential social service programs (Koshgarian, 2019). This means we have the resources to tackle a number of seemingly intractable problems. For example, current housing policy has led to a situation in which there are scores of vacant apartments and houses for each unhoused person (Picture the Homeless, 2015). Accepting the idea that certain populations are hard to serve and will remain that way due to perceived financial constraints is a failure of political imagination. In a time when increased budget deficits in the United States have led to calls for austerity, describing certain learners as *hard to serve* may become a self-fulfilling prophesy – "These people are difficult to provide services to so there is only so much we can do for (or with) them." When belts are tightened, those who have been effectively othered are less likely to be taken care of.

It is worth noting that in addition to currently being ill-served, it is highly likely that these othered student populations (e.g., adults with disabilities, ex-offenders, the unhoused) have been ill-served in the past. Economic, food and shelter vulnerability have long been persistent problems in the United States, as has inequality in public school systems. For that reason, it is not appropriate to consider adult education programs a *second* chance - it is not clear that

most adult learners were given a *first* chance. If somebody has been ill-served, they may in fact need more support than a student who hasn't been, but time and resource-intensive services should not be seen as some kind of excessive demand or largess. Rather, targeted and tailored services are part of a necessary restitution. If that effort is framed as being a *second* chance, it necessarily puts it in conflict with *first* chance (K-12) education and more likely to be on the budgetary chopping block.

Adult education advocates have long fought for a variety of supports that would have an immediate impact on learners and for broader structural changes. As with the disability rights movement, I think we need to stress the specific nature of the oppressions some learners face and highlight the harm being done to adult learners in vulnerable populations. I believe changing the terminology we use will limit (though not erase) the othering of learners facing certain barriers, call attention to the ways in which some adult learners are disempowered and help prioritize systemic change. It may also prove important in fights over budgets that are likely to get even more draconian with regards to social services. Recognizing that there are no hard-to-serve students, only ill-served ones, will help clarify the political project required to remove the barriers that stand in these students' way.

Response to There Are No *Hard-to-Serve* Learners, Only *Ill-Served* Ones by Erik Jacobson, Montclair State University

Joni Schwartz, City University of New York, LaGuardia Community College

A decade and a half ago, the community of adult educators to which I belonged called the phenomenon that Jacobson describes in *There Are No Hard-to-Serve Learners* as "creaming." This is the practice of choosing to serve certain students, in this case those with high scores on their initial GED® practice test or students with advanced TABE® scores, so that we fulfilled our performance objectives and more easily demonstrated employability. We knew what we were doing. The reasons were economic; we needed to show outcomes that would continue to make our adult education program eligible for funding.

As Jacobson states, "despite WIOA language explaining that variations in students' backgrounds will be accounted for in evaluations, some programs remain concerned about how the skill level of the students they enroll may impact their outcomes, and thus their funding." This was the concern in the instance with which I opened.

Whether this concern is fully founded or not, I agree with Jacobson that the labeling of individuals as *hard to serve* is unfortunate and misdirected in that it suggests that these students are somehow deficient and are the problem rather than identifying complex systemic issues that make some adult education programs necessary in the first place. To be more specific, how prepared an adult student is for employment at a living wage, career credentialing, acquiring a high school diploma or GED®, or fluency in English is often dependent upon and intersected with civil rights issues of equality and equity. Systemically and institutionally, there is disproportional access to quality education, health care, and housing for people of color, the poor, and the immigrant. This disproportionality is often driven by race, class, and immigration policies.

Jacobson is right. Evaluation metrics should not solely measure individual employment placements, recidivism, or movement away from public assistance without accounting for how programs and policies support and provide access, opportunity, education toward equity. One simple example is the Restoring Education and Learning Act (REAL Act) which has bipartisan congressional support and, if passed, restores the PELL Grant in prison adult education programs. This is one common sense, cost effective, and systemic approach to outcomes putting the onus on institutional change (Grawert, 2019; Sangree, 2019).*

I am reminded of Ibram Kendi's distinction between an assimilationist and anti-racist

approach to American issues of inequality and racism. Assimilationist's perspectives place the responsibility for poverty, employment, education difference, and racism on individuals and their need to improve and meet certain outcomes. Anti-racist perspectives challenge policies because policies construct and maintain inequalities; racist ideology follows (Kendi, 2016). Following Kendi's framework, labeling students *hard to serve* is assimilationist in nature, therefore decidedly racist. We, as adult educators, and those responsible for WIOA policy would do well to ponder. But I diverge.

Overall, I agree with Jacobson's predominant premise – words matter. And the use of the term *hard to serve* is at best misinformed and at worst harmful. I strongly agree with Jacobson, "Recognizing that there are no hard-to-serve students, only ill-served ones, will help clarify the political project required to remove the barriers that stand in these students' way." Language is a first step.

Unfortunately, Jacobson does make one error when referring to people formerly involved with the criminal justice system as "ex-offenders." Granted, this term is WIOA language, but Jacobson continues to use the term. Ex-offender like *ex-inmate, ex-felon*, or *ex-con* is inappropriate and pejorative, defining individuals by perhaps the worst moments in their lives. It is not the totality of who they are. Therefore, using identifiers such as *a person who experienced the criminal justice system, person formerly in prison,* or *formerly incarcerated citizen* is better. (Tranet al., 2018).

Why should this choice of words matter? As adult educators, we profess to be learner centered, and many of us come from the tradition of Freire and Mezirow with a deep investment in andragogy

and transformative learning which begins with hearing from the adult learner. In the case of persons formerly incarcerated, we have heard their collective voices as articulated in the now famous 2007 Eddie Ellis language letter:

> When we are not called mad dogs, animals, predators, offenders and other derogatory terms, we are referred to as inmates, convicts, prisoners and felons—all terms devoid of humanness which identify us as "things" rather than as people. These terms are accepted as the "official" language of the media, law enforcement, prison industrial complex and public policy agencies. However, they are no longer acceptable for us and we are asking people to stop using them. (Ellis, 2012)

From my reading of Jacobson's article, I think he would agree with the necessity for this person-centered language. In fact, this is exactly to his point, so it is a little surprising that he uses the pejorative term *ex-offender.*

One final addition to Jacobson's analysis of *hard-to-serve students* is his reference to ESOL and why because someone is foreign born should that make them harder to serve. Jacobson raises an excellent question in that adult students who are fluent in one, two, three or sometimes more languages, especially if they are literate in their origin language, are frequently "easier" to teach than students who are monolingual.

The debated Sapir-Whorf hypothesis states that language shapes thought and perception and implies that speakers of different languages think and perceive reality in different ways; each language has its own world view (Hussein, 2012). And again, to Jacobson's point, speaking multiple languages enlarges our cognitive schemata cultivating more nuanced ways of seeing the world expanding vocabulary, larger frames of reference, and life experiences.

Recent neurological research has shown that learning a language may subtly change, and

possibly improve, the way we think by expanding the brain's capacity. The benefits are quite clear for children but even for adults, bilingualism can postpone the onset of dementia and keep the brain agile (Bhattacharjee, 2012; Schlegel et al., 2012).

We as adult educators would do well to remember that not knowing English is not a liability but a difference; fluency in more than one language is an asset. Around the world, more than half of people – estimates vary from 60-75% – speak at least two languages. Many countries have more than one official national language where citizens speak multiple languages. In an increasingly

global world with the ability to communicate cross culturally is a tremendous benefit. ESOL (and the term should be ESOL not ESL) students can hardly be considered *hard to serve* but rather well positioned to learn and contribute to an ever linguistically changing America.

The overarching thrust of Jacobson's article is well articulated and rings true. We need to "stress the specific nature of oppressions some learners face … change the terminology we use, … call attention to the ways in which some adult learners are disempowered and help prioritize systemic change."

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* Since the writing of this article restoration of the PELL Grant to prisoners has been included in the December 2020, COVID/Stimulus Bill.

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Forum: Serving Learners with Barriers

(Part 3 of 3)

A Pragmatic Look at *Hard to Serve* and *Ill Served*

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Dr. Jacobson's analysis of *hard to serve* is well founded, especially from an academic and theoretical perspective, yet I am left wanting. Is the solution to merely change the language, the terminology of the legislation, or the terminology used by policy makers as well as practitioners? Are these adults hard to serve or ill served? When I first read his essay, I was struck by the quality of the foundational literature used in Jacobson's analysis, and quite frankly, I not only understood his argument but was also in agreement that the phrase *hard to serve* was pejorative, reflecting a deficit model. But as I read it again and again, I started to place myself in the shoes of the adult education center directors, coordinators, and teachers I've worked with in Kansas and the Midwest over the last 15 years, and started to question Jacobson's use of *ill served*. At first I considered writing an academic response, fully supported by scholarly references, but as I gathered articles and reports I determined that this type of response was hollow, missing the essence of what I have seen and experienced. So, I read Jacobson's essay again, then decided to write this pragmatic response relying upon what I have seen, heard, and experienced. In other words, this response is more anecdotal than scholarly, primarily based on my personal experience and conversations with a few directors I've known for years.

The adult learning centers I have visited cannot be looked upon as one size fits all. Some centers are in modern, well-appointed buildings; some are in repurposed storefronts in older strip malls. One I visited was in the old city hall, others in the basements of libraries, and a few in correctional facilities. Some have easy access by bus and public transportation while others require a car. Most all reflect the community they serve, the resources available, the proximity to the students they serve, and the leadership acumen of the center directors.

The staff I've worked with and met, with few exceptions, are exemplars in their teaching and commitment. Most centers have only a couple of full-time employees, typically the directors and coordinators. Many of these center leaders see themselves as pursuing their vocation, not looking for a better job, only striving to do the one they have at the highest level. The teachers often work part time earning $15-25 an hour, working as little as 10 hours a week to 30 or more, and some have other jobs to supplement their income while others are retired teachers or professionals. These teachers often are members of the communities they serve, knowing their students personally, aware of the challenges they face at home and at work, and fully understanding the barriers these adult learners face day-to-day in order to attend class. In the rural communities, many of these

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teachers drive 30 minutes or more to teach in satellite centers several times a week, and some drive to neighborhoods or communities that many of their friends wouldn't dare venture to. I have met center leaders and teachers who have been passionately doing this job for years, if not decades. Yes, they often experience frustrations, but they continue directing and coordinating these centers, or teaching in less than perfect situations with passion that exhibits a love for their jobs and students. Everyone wants only the best for their students and are exhilarated when a student advances to the next level or earns a high school equivalency diploma. They appreciate the commitment of the lowest level literacy student who continues to attend class regularly without giving up even though they struggle to achieve incremental steps, as much as those who move through their programs quickly. And each student presents unique challenges, some live with learning disabilities, some come from dysfunctional families, others face emotional trauma, some have experienced a series of bad luck, and a few are addicted to drugs and alcohol. Each student brings a unique story that account for their situation. Yes, these teachers see these students as hard to serve, yet work tirelessly to help each one reset their lives and not only learn literacy skills but also become more productive citizens. These professionals set the highest standards for our profession, often with little recognition.

The challenges of policy and legislative rules do impact and shape the work these professionals do. And of course, I have heard some grumbling and exasperation when the Workforce Innovation and Opportunity Act (WIOA) was first enacted in 2014, questioning the rationale of tying literacy and basic education to workforce development. I also saw how Kansas adult

education partnered with workforce development and one-stop centers. Many teachers I've worked with see adult literacy and adult basic education as one of the most cost-effective job training programs, even before WIOA was implemented. They understand that overwhelming barriers their students face in unemployment and underemployment where paying their most basic bills is a daily challenge, and hence they see their literacy classes as a jobs program where students become more employable.

The idea of intertwining adult literacy with employability is not the problem for most of these local professionals, either strategically or intellectually. The challenges they see are logistical, how can they maneuver within the bureaucratic structures of adult education and workforce development to best serve their students; they approach each challenge pragmatically, asking only "how can we solve this problem." They do not perseverate about the language in rules or policy; instead, they roll up their sleeves and continue their work. These professionals accept that policy making is a political process, and many directors communicate with their state legislators in an effort to educate them but realize that even these state politicians have little influence over Federal policy, just as I as a university academic have little influence over policy makers. Across the country in the immediate years after 2014 when WIOA was first implemented, state adult education offices provided training on how WIAO could be implemented, how it was different than WIA, and what changes were needed in order to meet these Federal requirements. Granted, this maneuvering was not always smooth, but these state and local adult education leaders made it work.

So, I come back to this notion of *hard to serve* and agree with Jacobson's thesis this phrase is

not the best. Yet *ill served* is no better. In my travels across Kansas and the Midwest visiting adult learning centers, working with directors and coordinators, collaborating with various state directors, and meeting students, there are several lessons I've learned. First and foremost, the professionals I've met are very dedicated, hard-working, and often underpaid, yet what excites me is they are passionate, creative and student centered. They do everything they can to serve all adult learners who come to their center, and these students are not ill served. The challenge is how do we reach those who never come through our doors. I personally know many adults who would benefit by enrolling in an adult basic education program but have no interest in doing so for many reasons. Many of these adults who qualify for these adult education programs are lifelong learners but not in a traditional sense that includes attending classes and taking tests. Another challenge that is coupled with this first challenge is that in Kansas the adult learning centers are serving only about 5% of eligible adults. This is not to say that their programs do not have full enrollment—most do. This low percentage reflects the realities of their funding streams, and it can be argued that these centers are serving the maximum number of students that their funding allows. Within this educational reality, I do not know of any center or program that screens applicants only to select those who are most likely to succeed by either earning a high school equivalency diploma or easily advancing to the next the level, thereby accruing quality points for the center. Rather, most centers operate on a "first-come, first-served" protocol and take every applicant if they have room.

Connecting policy to practice is important, and policy does shape practice as in the case WIOA. Pragmatically though, WIOA has not hurt the

mission of these adult education centers. These center leaders and teachers continue to serve their students as best they can, and there are many examples of how they used the WIOA legislations to strengthen their efforts, such as Accelerated Opportunity (2014) where students can duel enroll in a certificate program at the local community college while enrolled in an adult basic education program. Another creative approach I've seen is where the adult learning program combines basic academic skills, financial literacy and cognitive thinking, with the goal to develop the student's reflective thinking skills so they can understand why they need to change their lives and become more productive. And I know of one program that is addressing emotional trauma in the curriculum with the help of counselors by building deeper relationships between teachers and students—the essence of this program is building strong relationships. Regardless of the language in Federal and state legislation, these adult education centers are continually reaching out to adults who qualify for their programs, creatively and effectively serving them once they enroll, setting up satellite classrooms, developing online programs, going into prisons, hiring qualified teachers and developing strategies to better serve their students. These programs succeed because they do more than merely teach basic academic skills.

Is *hard to serve* a pejorative phrase? Yes, at some level as articulated by Jacobson. But *ill served* is not only inaccurate but slights the work and efforts these front-line adult educators successfully accomplish every day. The profession needs more research on how adult education teachers and centers serve their students, such Rogers and Kramer's (2008) research that collected interview and observation data on nine adult education

teachers to provide a thick description of how they developed and delivered responsive literacy education. We need research on how policy shapes the practice of adult education teachers, as well as how these teachers work within said policies. Most importantly though we need to be careful when we state that our students are ill-served. Within the confines of Federal and state rules, within the economic limitations every center has, the majority of adult learning students are well served.

I suspect that Jacobson will agree with these thoughts I've shared. My central message that I will end on is that focusing on language and wording may be important to many, but for practitioners the goal is to successfully serve our students within the limitations they have little control over. While policies and rules may be inadequate, the adult educators I've worked with are pragmatists, problem solvers, and creative strategists. *Ill served* misses the essence of this front-line work.

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Resource Review

Review of *Preparing Adult English Language Learners to Write for College and the Workplace*

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Schaetzel et al. (2019) address the substantial challenges of helping adult English language learners (ELLs) develop the writing knowledge, strategies, and skills required in academic and workplace settings. Reflecting increased demands of the 21st century workplace, recent College and Career Readiness Standards for Adult Education (U.S. Department of Education, 2013) place increased emphasis on academic writing proficiency. Unfortunately, adult education teachers working with ELLs, in general, have not received adequate preparation for teaching writing. Thus, the purpose of the book is to support professional learning by providing practical instructional strategies for writing instruction with ELLs. The audience includes adult education teachers and program managers as well as university instructors and students who are preparing to work with adults learning English.

The editors have substantial research and practical experience in adult education, and they have recruited chapter authors with practical experience working with adult ELLs on writing. One of the challenges for the book is that limited research has addressed writing instruction for adult ELLs or for adult learners in general. The limited emphasis on writing presents a challenge but, at the same time, increases the relevance of the book. The authors base their instructional recommendations on professional practice, available research, and general principles of adult education and literacy research.

The chapters are designed to provide practical advice and support for teaching writing. Each of the 10 chapters describes an instructional approach, and most of them provide detailed support in the form of lesson outlines, materials, additional resources, and questions for self-study and application.
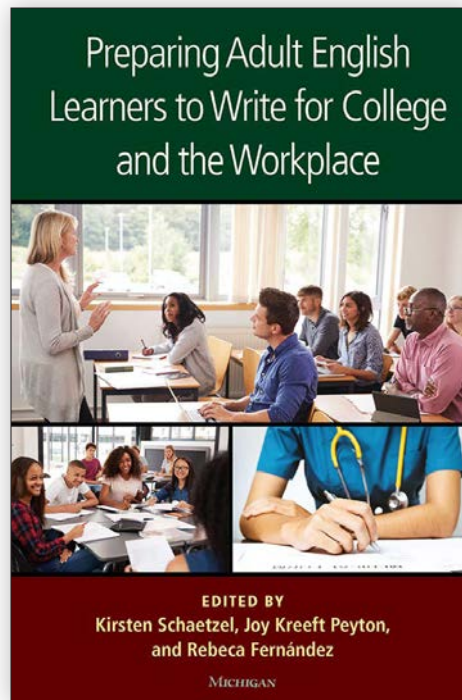
Schaetzel, K., Peyton, J. K., & Fernández, R. (2019). *Preparing Adult English Language Learners to Write for College and the Workplace.* University of Michigan Press. 280 pages. $31.00 paperback. ISBN: 978-0472037360

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The book is organized in four sections. The first, "Setting the Stage for Teaching Writing," focuses on integrating writing with reading and oral language development, which has substantial theoretical support from research in K-12 settings. It also advocates the use of content-based learning approaches to developing literacy skills. Section 2, "Supporting the Writing Process," addresses the writing process in general, scaffolding the process, technology support, and feedback. The chapter on feedback is based on fairly extensive research on corrective feedback for ELLs, some of it conducted by chapter author Ferris (2012). It provides clear principles and practices for providing feedback on both content and language. The chapter on scaffolding writing draws in part on the author's own research on the use of dialogue journals (Peyton & Staton, 1993), which involve written interactions between students and teacher that provide an opportunity to informally guide students in developing their ideas and language skills. The chapter on technology provides an outline for teachers to follow in planning a unit of project-based instruction that culminates in research-supported reports on a meaningful topic (e.g., careers). The outline and instructional recommendations are not specific to adult ELLs, but the suggested technology resources are appropriate. The chapter on the process of writing discusses the general principles of familiar process approaches, though without much specific reference to ELLs.

Section 3 focuses on adults who have limited education and literacy in their home language. The first chapter appropriately stresses the importance of teaching early reading and writing skills in the context of meaningful activities; however, the specific recommendations for developing word recognition skills are not consistent with research showing the value of

systematic phonics instruction with ELL adults (Alamaprese et al., 2011). The chapter on building on oral language skills to develop writing presents four sample instructional units for students from high beginning to advanced English as a second language classes, all of which use oral language and reading in the process of conducting research and presenting the results in written reports. Even at the lowest level, the examples show learners engaged in collecting data - interviewing peers, graphing the results, and collaboratively writing a report with the support of sentence frames.

One evidence-based instructional approach that is missing from the book is strategy instruction. Substantial research supports the value of strategy instruction in writing with elementary and secondary students, and with adult education and college students (Traga Philippakos & MacArthur, 2019). Over 10 years of research by Olson et al. (2020) has demonstrated positive effects of strategy instruction in large scale studies in high schools with large proportions of ELLs.

Overall, the book is a valuable resource for professional learning about the important goal of improving instruction in writing for adult ELLs. Research on instruction in this area is limited, but the instructional recommendations, with few exceptions, are supported by available research, professional practice, and general principles of adult education and literacy research. The book provides practical recommendations and clear detailed descriptions of instructional approaches as well as references to additional sources. It would fit in university classes on literacy instruction for ELLs at the high school or adult levels; it would also be useful in professional learning communities at adult education settings.

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Resource Review

Review of *Learning in Adulthood: A Comprehensive Guide*

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In its fourth edition, *Learning in Adulthood* provides foundational information on adult learning as well as new information published since the third edition in 2007. The book, which is nearly 600 pages in length, pulls together a "comprehensive overview and synthesis of what we know about adult learning" (p. x): its context, its learners, what and why they learn, the learning process, new approaches, theory of adult learning, and other relevant issues. The focus is on the needs of the adult learner, how to facilitate their learning, the "technology-infused context in which learning takes place" (p. x) and how learners interact with the context and with learning itself. Folding in elements of recent research in sociology, philosophy, critical social theory, and psychology, the authors take a multidisciplinary approach in their presentation of the context of learning.
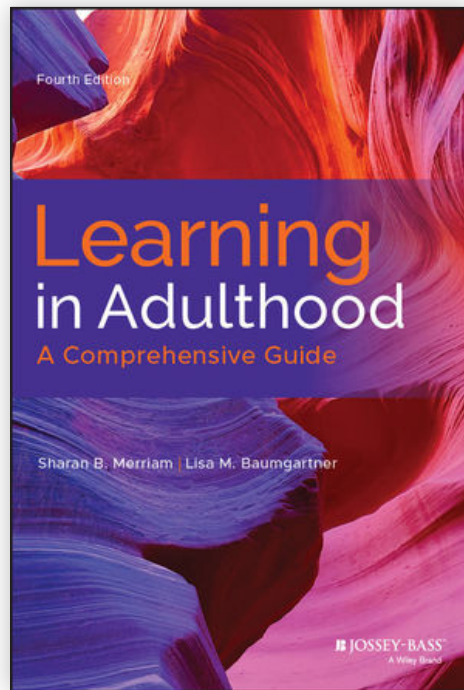
Learning in Adulthood consists of four parts. Part I, "Adult Learning in Contemporary Society" covers the context in which adult learning occurs; Part II, "Adult Learning Theory" covers the theories and models of adult learning; Part III, "Newer Approaches to Adult Learning" and Part IV, "Learning and Development" cover topics that intersect with adult learning. Each part consists of 3-5 chapters, described in detail in the book's preface. The book includes something for readers whose levels of expertise vary, including both new adult educators and those well-versed in adult education research. The authors present the book as reading material for adult education courses and professional development for practitioners as well as a resource for adult education researchers.

The book is well organized topically, and each chapter concludes with a useful one-page

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summary encompassing the chapter's major points and takeaways. For example, Chapter 10 introduces five perspectives from around the globe: Confucianism, Hinduism, Maori, Islam, and African indigenous knowledge. In addition to the authors' introduction and identification of themes, they present five essays explaining non-U.S. perspectives from guest authors well-versed in respective traditions and perspectives on adult education; these essays bring perspectives alive. This chapter helpfully summarizes the "value of engaging with other frameworks" and notes the challenge of thinking "about the purpose of education and learning" outside Western traditions (p. 288).

This fourth edition retains much of the chapter structure and content from the third edition yet differs from the third in several meaningful ways. The authors updated their examples and research findings from more recent studies throughout each chapter. Although the book still encompasses 16 chapters, the third edition's 11th chapter, which reviewed five traditional learning theories (behaviorism, humanism, cognitivism, social cognitive learning, and constructivism), has been removed.

A new Chapter 2 has been added to cover adult learning and technology. The chapter focuses on the history of distance learning, theories of online learning, and technology's role in non-formal learning (i.e., learning that occurs in organizations outside of formal education settings) and informal learning (i.e., any learning that occurs outside a formal context and outside organizations). The authors note that "technology is both creating learning demands and facilitating learning in adult life," (p. 2) a statement that has special importance due to the impact of the coronavirus pandemic on adult learning and instruction.

Learning in Adulthood lives up to its subtitle of being a comprehensive guide. The authors present a vast amount of information in a clear and informative writing style. Arguments are thoroughly cited. And with approximately 80 *pages* of references, what is not covered in each chapter is readily available through these references.

My only criticism of the book centers around the inconsistent quantity and quality of use of tables, figures, and graphics. Offering a reader tables, figures, or other graphics around long stretches of narrative is a time-tested technique to keep the reader engaged. Multiple chapters feature occasional tables and graphics, but these features diminish as the book goes along. Features are somewhat simple or even challenging to read, appear to present mostly older theories, ideas, or outdated statistics and could be substantially more engaging. For example, a figure in Chapter 3 displayed seven hexagons in a figure of a model, but the hexagons and print are nearly the same shade, making the print very hard to interpret. Tables tend to be formatted with little spacing, making it difficult to differentiate rows. In another example, Table 4.1 in Chapter 4 offers a two-page table with statistics on adult participation, yet the statistics are very out of date (from 2004-2005) so no longer particularly informative. All three chapters in Part III feature only one figure. No figures or tables are employed in Part IV. This loss of potential to engage readers, particularly students, is unfortunate.

In conclusion, this book appears intended as a text for an introductory adult learning course and is helpfully divided into a chapter for each week of a standard 16-week semester. Professors and lecturers may find it useful as a main course text, to be supplemented by additional newer resources. It is also a useful reference for adult educators and researchers who want to know more about

adult theory, or who need a solid grounding before delving deeper into a specific topic. The main value is in its breadth of topics and pointing readers to where they could get more information. It is a full 40 pages longer than the third edition, and 23 of those additional pages are dedicated to more references and indexing at the end of the book. As a reference work, it touches on major theories of adult learning and practice, primarily from a historical perspective. Although the book is updated in most of its chapters, except for the new Chapter 2, it does not read like a particularly current resource. For readers wanting to ponder the latest scholarship, without hunting aimlessly through Google Scholar, ResearchGate, or a university electronic database, it provides a good launching point.

Research Digest

Where Do We Go Now? Adult and Workforce Education Policy Post-2020

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In this essay, I argue that our recent pivot toward digital learning, in addition to the social discontent and economic turbulence exacerbated by the pandemic, requires a re-imagining of how we "do" adult and workforce education (AWE) policy. First, I briefly describe the 2014 Workforce Innovation and Opportunities Act (WIOA) policy. Next, I present findings from recent research on AWE policy development and identify substantial policy gaps. I emphasize a pressing need to return to the proverbial policy drawing board in AWE policy and invite our field to imagine a future for AWE that promotes a socially conscientious, inclusive, and democratic society and responds to the very real demand for workforce development reform, and the urgency of reducing earnings inequality.

Current Policy

Recent legislative efforts (WIOA) have worked toward integrating a wide variety of systems and to improve interoperability of adult educational, workforce, and social programming, and reduce the duplication of services. The primary aim was to economize and streamline educational opportunities for adults, and ultimately to help them maximize their earning potential (Brown & Holcomb, 2018; McDonnell & Soricone, 2018; Mortrude, 2018). In addition to improving cooperation and coordination between complimentary services, WIOA also further required providers to enhance wraparound services addressing various barriers many adults must overcome in order to participate in educational opportunities (Patterson, 2018; Prins & Clymer, 2018). Another legislative aim was to create common understandings and measures to improve comparability of learning outcomes and measures for the purpose of accountability and research (Alamprese, 2016).

Efforts spurred by the Career Pathways (U.S. Department of Labor, 2012, 2016) initiative intended to bring academic improvement together with workplace training by aligning adult education, community college, human services, and workforce development efforts (Mortrude, 2018). Career Pathways initiatives are interposed between WIOA, the Higher Education Act, and the Strengthening Career & Technical Education for the 21st Century Act (Perkins V) federal legislation. Career Pathways was primarily focused on the transition into postsecondary education and vocational, career, and technical training, and aimed to make educational trajectories clearer for adult learners and reduce the amount of time needed to obtain measurable learning gains, qualifications, and ultimately employment (Campbell et al., 2016; Uvin, 2018).

From a learning outcomes and economic standpoint, the aims of both Career Pathways and WIOA are reasonable and the legislation presents an inexorable argument for tightening links between education and labor markets. However, over the decades, many have criticized the employment-driven AWE policy framing that primarily conceives of adult learning as a means to an economic end (Finnegan, 2016; Milana & McBain, 2015; Rose, 1999; Sandlin, 2005). Eyster and Nightingale (2017) explain that while little new funding at the federal level was authorized through WIOA, the aim of the legislation was to "shift the available funding through WIOA and the largest discretionary grant programs administered by the Department of Labor more toward developing training programs for in-demand jobs" (p. 5). Many reports suggest that training programs embedded within an employment context are, indeed, more effective (U.S. Department of Labor, 2014; Schochet et al., 2008), and that adults who receive specialized academic and career coaching and targeted support services tend to see better outcomes overall (Anderson et al., 2016; McConnell et al., 2016). Due to limited funding, however, only a very small percentage of U.S. workers are actually served.

Concerns have been expressed that the focus on measurable learning gains and employment, in addition the performance measures required of providers, may unwittingly push providers to prioritize learners who are better able to "make the grade." It has been argued that this focus could further disadvantage marginalized adult learners, especially adults who need the most literacy skills development, and/or those whose primary goal is not attaining employment (Ladinsky, 2017; Pickard, 2016, 2019). It has also been argued that this narrowing in focus and procedural formalization may render community providers less flexible in their ability to meet the needs of

adult learners locally (Jacobson, 2017).

The array of competing commitments providers face adds to organizational constraints and may ultimately limit AWE access and reach (Alfred, 2020). AWE providers must attend to cumulating state and federal regulations in addition to their long list of daily functions, continually seek ways to supplement miniscule and soft budgets, and manage the challenges of retaining instructors and volunteers. Additionally, the climate of scarcity and limited funding has not only increased competition between educational sectors and providers for adult learners (Bok, 2013), but also pitted different models of adult education against one another for resources (Rasmussen, in press). Many also question how the varieties of functions of adult education can meaningfully be integrated under the broader workforce development rubric, if the emphasis and measures are centrally homed in on employment (Belzer & Pickard, 2015; Belzer, 2017). McHugh and Doxsee argue, for example, that "Without adult education that is not bound to employment-focused outcome measures, it is extremely difficult to meet the needs of immigrants and refugees seeking to integrate into the social fabric of their communities, support their children's educational success, and ultimately become naturalized citizens" (2018, p. 2).

These critiques are warranted. What is missing, however, is the identification of specific areas of policy weakness that we can use to generate suggestions for alternative AWE models and approaches. In some recent policy analysis research, I directly examined the AWE legislative documents (Roumell et al., 2019, 2020) which helped reveal areas where policy is under-developed. With this kind of practical information in hand, we may be better able to identify solutions and activate stakeholders to take action and make improvements.

Holes in the Policy

U.S. federal AWE policy development occurs in a pattern of "waves" of policy reform in response to major historical, economic, and social events. Such patterns in policy development illustrate that AWE policy tends to be reactionary, and that initiatives or amendments have been tacked onto longstanding legislation (e.g., Wagner Peyser Act, 1933). With WIOA, the beginning of a new policy wave and possible substantive overhaul of AWE policy is discernable. Recently amplified social and economic challenges may also suggest a favorable opportunity structure for further policy reform.

The systematic coding of legislative documents revealed policy areas in need of further development. Ongoing concern about insufficient funding notwithstanding, the analyses provide evidence to support the assertion that AWE policy needs further attention in these areas:

- Educational technologies; learning, administrative, and productivity applications; and infrastructure to support digital literacy in adult learning;

- Transformation of teaching and learning practice through professional development; improvement of instructional systems and programming, and other sources of support for teaching and learning practices;

- Integration, cooperation, and responsiveness of policy coordinating between varying educational sectors; and

- Equity and inclusion: recognition and systems responses to social issues and matters of diversity, inclusion, and equity in educational programming specifically, and society more broadly, and improved support for workforce development to address earnings inequality.

AWE policy resides at the crossroads of where economic and social policy meet. The legislative language and intent show how federal AWE policy aims to use education and job training as vehicles for addressing broader systemic social and economic issues. The promotion of public and accessible adult learning opportunities is a strategy for engendering both individual and wider social and economic improvement. Economic empowerment is an essential element in the promotion of wellbeing, social, and economic integration for groups who have been consistently sidelined. Social and structural contexts and provisions for basic life needs are essential for learning and continued development in addition to necessary job skills training. Matters of equity and inclusion are critical for effective and meaningful adult learning. The policy "holes," however, reveal that the infrastructure and technology, teaching and learning practices, transitions between sectors/institutions, and equity and inclusion measures tend to be overlooked in favor of an employment emphasis.

Adults' lives, social, and economic contexts must all be taken into consideration (Alfred, 2002; Cincinnato et al., 2016), but the policy facets that would address these in federal legislation seem to be the least developed. The patterns that emerged from the policy analyses reveal that U.S. policies are underdeveloped precisely in areas that influence learner participation: infrastructure and technology to support access, participation, and digital literacy; curriculum and teaching practices that are effective for marginalized adult populations; basic social needs and wellbeing; and matters of equity and inclusion as related to education and jobs training. The findings also highlight the need for further development in the area of culturally congruent educational programming.

The year 2020 laid bare many areas of acute need: digital literacy and digital inclusion; the need for educators' professional development in instructional technologies, hyflex delivery, and media-driven learning activities; improved general AWE reform leading to meaningful learning experiences paired with dignified work and sustainable wages; and finally, a need for stronger social policies related to matters of diversity, social inclusion, digital equity, equity in education, and educational, social, and income inequality. When our current social and structural conditions are taken into consideration together with the "holes" in AWE policy, we can identify avenues for action.

Possible Areas for Policy Advocacy

Reach and Access

WIOA's content contains sprinklings of policy framing language and mandates regarding instructional technology and the integration of digital literacy into curricula, but 2020 has stressed the need to address digital equity and inclusion as a fundamental basis for human thriving in the 21st century (DigitalUS Coalition, 2020). The pandemic has revealed the heightened need for improved infrastructure and Internet services. We must pursue policies that bolster internet and technology infrastructure, get technologies and applications into learners' hands, and emphasize the need for policies that address matters of digital equity and inclusion.

Professional Development

The COVID-19 pivot caught many educators off guard and highlighted the increasing demand for flexible instructional delivery. Current experience and newly emerging research will reveal areas of need for professional development and innovations in delivering instruction and training for adult learners.

Learning and Earning

Adult education research emphasizes the context and conditions necessary to support individual growth and social thriving. AWE policy must emphasize the broadening of choice and options for all and provide adequate learning and community conditions that generate good health, wellbeing, civic and community participation, and the opportunity to live a meaningful and dignified life. The economic and jobs focus is not enough, we will need to better integrate and enhance the social, equity, and inclusion aspects into AWE policies as well.

Economic Justice

Carnevale et al. (2019) recently released data exposing significant and growing income gaps between White, Black, and Latinx populations in the United States, demonstrating how access to education and workforce training can play an important role in reducing income inequality. The current economic paralysis and increased unemployment have foregrounded the urgent need for dignified jobs and family sustaining employment. The increasing demand for higher levels of literacy, education, training, and skills will also continue to directly impact the livelihood of millions of individuals, which will also require a perceptive response on the part of education and workforce systems. The report presents a united call to action for advocacy and AWE policy changes to promote economic justice.

Imagine Tomorrow: Act Today

Over the past 20 years, adult literacy statistics suggest little has changed, and in some respects, the divides are widening (COABE, 2019). The 2014 WIOA policies and mandates improved interoperability and formalized several aspects of the AWE system. However, WIOA continues

to promote 20th century thinking in a no-longer-new 21st century. What seems to be lacking are energizing conversations about innovative policies and new possibilities for empowering and inclusive practice. Together, we need to return to the drawing board and re-imagine how AWE policy can contribute to solutions to address these acute and evolving needs.

The year 2020 has called us to reflect on our role in the evolving narrative of adult education. The AWE policy gaps demonstrate policy development is a viable and necessary path for contributing to and bringing about necessary socio-structural changes. Our field's literature, research, and practice contain a broad collection of philosophies, expertise, reflective praxis, and lived experience that can and must be brought to bear in this historical moment. We must leverage this knowledge and know-how and apply it to AWE policy.

The stakes are too high; we must vigorously pursue new and innovative funding, policy, and programming avenues at all levels. As a field, we must intentionally engage in serious knowledge, resource, and policy mobilization. We must motivate champions and power players who can "go to the matts" at the municipal, state, and federal levels. Locally, we need to continue engaging with workforce boards, organizations, and funders, and ensure AWE policies are informed by and respond to the real, on-the-ground, and contextualized needs of adult learners. If not, our efforts will amount only to tiny drops in a giant bucket of need.

We will need to collectively re-vision what adult and workforce education can look like post-2020: an AWE system that has more engines than it has brakes. Even supposing, an engine with no fuel is inoperable. I echo Vanek et al.'s call for unified action in their spring 2020 viewpoint article, where they illustrated examples of how educators can come together to support immigrants' and refugees' learning and life transition needs. We are all learning and transitioning and must continue to actively pursue creative partnerships. The theme of partnership is strong throughout WIOA; building partnerships is how many AWE providers have survived the last 20 years, and partnerships are how we will persist post-2020.

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Technology Solutions for Adult Basic Skills Challenges

Using Technology to Help Students Set, Monitor, and Achieve Goals

Anthony Burik, Outreach and Technical Assistance Network

The focus of each Technology Solutions for Adult Basic Skills Challenges column begins with a common challenge facing adult basic skills practitioners. Solutions offered for these challenges, at least in part through the use of technology, include: hardware such as desktop and laptop computers, smartphones, electronic tablets, VR goggles, robots and electronic whiteboards; software applications such as websites, course management systems, learning management systems, and databases; and apps for mobile devices. Each article begins with a description of a challenge and examines one or more solutions that use technology.

The column for this issue was written by invited author Anthony Burik, a project specialist in technology with OTAN in California.

David J. Rosen, Newsome Associates

Description of the Challenge

Imagine it is the start of a school year or a new term or semester, and you plan a goal-setting activity with your new students to kick off the class. You download an online goals worksheet or get your teacher-developed copy ready for use. When you meet your students on the first day, you take time to have students make a list of their goals and maybe even detail a plan for reaching those goals.

And then? While some teachers and students will return to the goals to monitor progress and check off completion, in other classrooms that is the last time the goals will appear, filed away as another thing to get to as the curriculum, instruction, and assessments take hold and become the priorities for everyone involved.

In other programs and schools, some teachers do not even get to the first step. Goals are checked off by students during intake and registration and submitted by schools and agencies to satisfy federal and state data accountability requirements. Information about the checked boxes may or may not make its way to instructors. This becomes the only attempt by students to let us know why they come to our schools and programs and what their goals are.

While there is little doubt as to the importance of goal-setting and its connection to student persistence (See a short summary of the research in "Set and Monitor Goals" at https://lincs.ed.gov/state-resources/federal-initiatives/teal/guide/setgoals), many adult educators may not have a plan for not only helping students identify goals, but monitoring the progress of those goals and identifying if and when those goals have been achieved, and even reformulating student goals when issues in achieving them arise.

The political landscape of 2020 has also catapulted the issue of equity to the forefront. If students never get to state their goals, or do state their goals but nothing is done to help students reach them, how does that make the students' experiences in our adult education programs equitable? Why is attention to student goals not considered when we plan for what will happen on a daily basis in class?

Like many other aspects of the educational process, adult educators are looking to the possibilities of technology in the shift from print to digital solutions. Some questions that arise, then, are, can technology make a difference in the goal-setting, -monitoring, and -achieving process? Can technology help everyone - teachers, students, staff - be more attentive to and productive with student goals? And how can we use technology to promote our student success stories as students work towards and reach their goals?

Possible Solution

The solution has five parts: adopting a goals framework; determining technology access, connectivity and ability; nudging; selecting the tech tools to use; and celebrating student achievement and success.

Adopting a Goals Framework

Decision Making Goal Setting - SMART

It is important to adopt a goal-setting framework that will provide the language and structure

moving forward. Many adult educators are already familiar with SMART goal setting, which originally comes from the business world. SMART is an acronym which stands for Specific, Measurable, Achievable, Relevant, and Time-bound, and each component helps students focus on what they want to and can achieve in a certain period of time. SMART goals also lie at the foundation of some of the edtech tools that will be discussed shortly. There are many SMART goal-setting guides and handouts online; a good place to start would be this San Diego Continuing Education webpage with handouts (See "Decision Making Goal Setting - SMART" at http://cds.sdce.edu/decision-making/SMART-Goal-Setting) and this handout developed by the Lake County (FL) Library System (See "Goal Setting Strategies" at https://www.mylakelibrary.org/pdfs/adult_literacy_program/tutor_training_orientation/goal_setting_strategies.pdf).

Determining Technology Access, Connectivity, and Ability

If students are going to use technology in goal-setting, -monitoring, and -achieving, then it will be important to determine student technology access, connectivity, and ability, whether the student and teacher or staff member are in a physical space (for example, program, school, learning center, library, job center, etc.) or online. A simple survey, like these that ask about cell phones (See Susan Gaer's cell phone survey at https://www.quia.com/sv/501056.html and Soledad Knipp's cell phone features at https://www.quia.com/sv/460110.html), should help the adult educator determine this for each student and what steps need to be taken to address any issues with students using technology.

The teacher or staff member should consider the full range of ways to connect with students where

they are, from phone calls, texting, and email, to messaging through a learning management system (LMS) or the program or school's student information system (SIS), social media, and virtual meetings (via Zoom, Google Meet, Skype, etc.). You should also be mindful of devices students are using, planning for student usage on mobile devices primarily, and be prepared to offer goals-related apps and tools that are accessible to students with low to high digital ability (for example, mobile apps, but also fillable SMART goal worksheets to e-portfolios to showcase student progress towards achieving goals).

Nudging

To keep students on track to reach their goals, the adult educator should refine their ability to "nudge" students. In Richard Thaler and Cass Sunstein's book *Nudge*, the authors present what they term "choice architecture" that provides a framework for adult educator communication that helps students make good choices and not be deterred in reaching their goals. Here are the six NUDGES components for "choice architects" (or in this case, adult educators) to consider to prevent students from straying from the path of reaching their goals:

- iNcentives - "Sensible [choice] architects will put the right incentives on the right people... The most important modification that must be made...is salience. Do the choosers actually notice the incentives they face?" (pp. 97-98) A teacher should present an incentive unique to that student, and help the student recognize the incentive being presented even in the midst of a difficult situation.
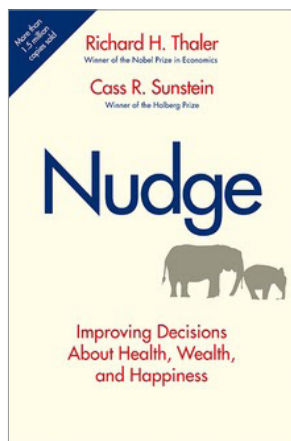
- Understand mappings - "A good system of choice architecture helps people to improve their ability to map and hence to select options that will make them better off. One way to do this is to make the information about various options more comprehensible…" (p. 92) Students can get bogged down and become frustrated deciding between options; teachers can help students chart a path through options that make work on their goals and life manageable.

- Defaults - "...many people will take whatever option requires the least effort, or the path of least resistance... [I]f, for a given choice, there is a default option - an option that will obtain if the chooser does nothing - then we can expect a large number of people to end up with that option, whether or not it is good for them." (p. 83) The historic default for many adult students is to drop out or give up, so we have to steer students clear from past behavior.

- Give feedback - "The best way to help Humans improve their performance is to provide feedback. Well-designed systems tell people when they are doing well and when they are making mistakes." (p. 90) We should always strive to provide clear, meaningful feedback for students.

- Expect error - "Humans make mistakes. A well-designed system expects its users to err and is as forgiving as possible." (p. 87) We gently remind students that mistakes are natural and a part of the learning process, though they may not see them that way.

- Structure complex choice - "When we face a small number of well-understood alternatives, we tend to examine all the attributes of all the alternatives and then make trade-offs when necessary. But when the choice set gets large, we must

use alternative strategies, and these can get us into trouble." (p. 94) For students unaccustomed to goal-setting and -achieving, this may seem like a tall order in their minds. One of our primary tasks is to help students structure their big goals into manageable chunks. (Note: page numbers above refer to this edition: ISBN-13: 978-0300122237)

There are apps like **Signal Vine (signalvine.com)** that educators can use to nudge students that are not necessarily goal-setting specific; in the future as technology develops, we foresee chatbots serving as the first point of contact that will also take on the role of nudging students to remind them of deadlines and tasks to do. As a practice, however, teachers should beef up their nudging skills because as they monitor student progress towards achieving goals, they will need to nudge students from time to time; communicating the right nudge in a given situation is critical and being familiar with choice architecture and how to provide a timely nudge should help teachers in this regard.

Selecting Tools

There are a number of edtech tools to consider using in the goal-setting, -monitoring, and -achieving process. Some of the tools offer both a free and subscription-based version.

Lifetick

Lifetick (lifetick.com) is the tool that pays the most attention to SMART goals. A student can create a free account (and a subscription-based version is available) and get started creating their goal(s) by providing answers to and information about questions on each S-M-A-R-T component. Once the goal is created, the student can add tasks to the goal that break the work into smaller, measurable chunks. The student can select how

often they will receive reminder notifications from Lifetick about tasks they have created. One of the best features is that a student can add a "supporter" to their goal, such as a teacher, counselor, or other staff member, who can monitor student progress and do some nudging by messaging the student within the app.

Strides

Strides (stridesapp.com) is a tool that pays some attention to SMART goals. A student can create a free account (and a subscription-based version is available) to get started. It is best used as an app on iOS (i.e., Apple) devices only, so there is that limitation. While not as explicit as Lifetick in using the SMART goals framework, Strides still asks the student, using the Project tracker in-app, to name the goal and add tasks with due dates, and reminder notifications can be set up. Many users like the simplicity of the Strides app,

which bears a lot of resemblance to to-do apps such as Todoist, Any.do, and Toodledo. One drawback, though, is that Strides has been slow to incorporate features such as adding supporters, similar to Lifetick, and offering an Android version of the app.

Goalscape, GoalEnforcer, and Goals on Track
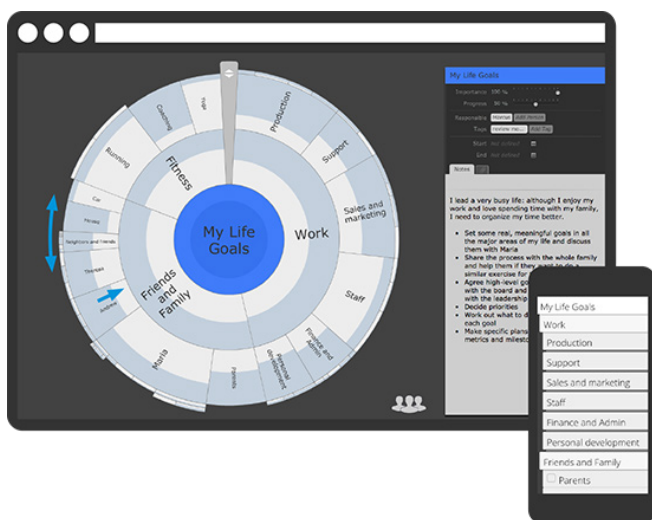
Goalscape (goalscape.com) is a visually-oriented, goal-setting tool that pays some attention to SMART goals. To get started, a student can create a free account (and a subscription-based version is available). The strength of Goalscape is being able to organize the goals and tasks visually, which may appeal to certain students (and adult educators as well). Goalscape is similar to Lifetick in that a student can add a supporter who is able to view the goals and tasks and communicate with the student in-app.

GoalEnforcer (goalenforcer.com) is another visually-oriented goal-setting tool. You can download a demo version of GoalEnforcer to try it out, but purchase is required to allow the user to save their work and return to their goal to monitor progress.

Another tech tool adult educators might consider is **Goals on Track (goalsontrack.com)**, which pays attention to SMART goals but is only available with a paid subscription.

Other tools for monitoring and staying connected with students include:

Creating a Facebook Group

One option for staying connected with students is to set up a private Facebook Group (by changing the settings of the Group to keep all activity within the class). A Facebook Group can be used to share information with students, for learning activities, to learn more about the students, and to encourage students, create connections, and build relationships. A teacher can use a Facebook Group to nudge, monitor, and keep students on track, and with other students in the Group, peers can encourage each other towards achieving everyone's goals. Many students are already familiar and comfortable with Facebook, so this might be a particularly appealing and easy tool for the class to use.

Learning Management System Options

Another possible option for monitoring student goals and nudging students is through a learning management system (LMS) such as Moodle, Canvas, Schoology, or Google Classroom. The first step would be to see if the LMS has an add-on, plug-in, module, or some other component that is useful for acknowledging, establishing, and monitoring goals. Barring this, it is going to take some work and creativity to think about how to help students set, monitor, and achieve goals within the LMS. One option, for example, is to consider exploring calendar groupings (meaning, a group with the teacher and student) and settings to schedule events and push event notices out to students.
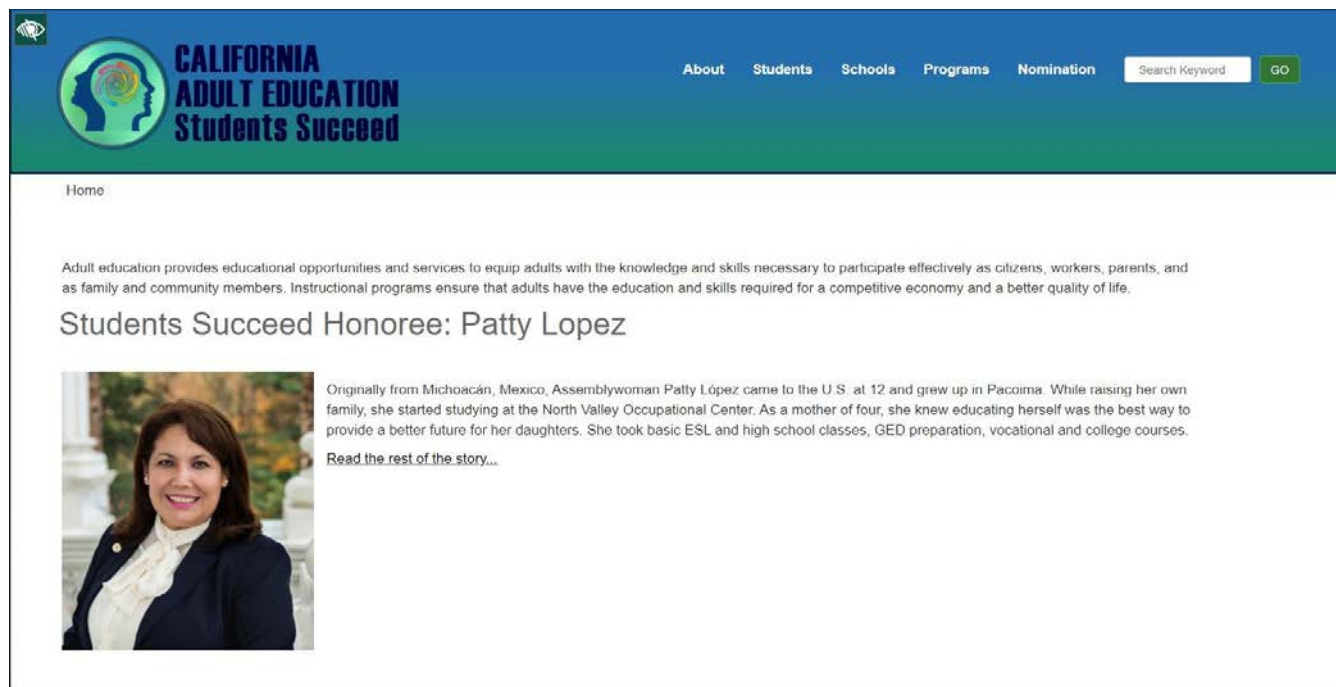
Celebrating Student Achievement and Success

Highlighting student successes, large and small, encourages students because they can see accomplishments and receive validation for their work. It is important to try to "document the process" and not leave celebrations to just major achievements, such as graduations, ceremonies, and milestones. Social media is a great tool for documenting and promoting success, as it tends to be where our students are online and can be shared with students even if they are not active on social media. Also consider making use of a program, school, or agency website to house success stories. In both cases, this is an opportunity for teachers and students to create using video, which is a versatile medium and a primary way of sharing information with audiences, with a program such as **Adobe Spark Video (spark.adobe.com/make/video-maker)** and beautiful graphics, using a program such as **Canva (canva.com)**, **Piktochart (piktochart.com)**, or **Venngage (venngage.com)**.

As an example of a way to promote student success, my organization, Outreach and Technical Assistance Network (OTAN), hosts the **California Adult Education Students Succeed website (adultedlearners.org)**, which includes written and video stories of successful adult education students from ESL, ABE, ASE, and CTE programs. These kinds of stories can be shared in class to motivate learners and let them know that they are not alone in reaching their goals, even though they sometimes may feel like others cannot relate to the challenges they may be facing.

To promote student success, start with intake and registration, the first day of class, the first successful assignment...and keep going! For some students, attending an adult basic skills program, or even setting foot on an adult education campus, is already a major achievement in their lives, so celebrating these accomplishments also becomes continual promotion of the value of adult education. Finally, by relying more and more on technology, we now have new ways to stay connected to students even after they leave our adult education programs, as we seek to follow-up with students on postsecondary and employment outcomes.

Further reading

Persistence Plus website: *What is a Nudge and How Can It Help More College Students Graduate?*

EdTech Magazine: *Digital Alerts, Or Nudges, May Help College Students Stay on Track in STEM Courses*

Education Dive: *Giving a nudge: How digital alerts can keep students on track*

EDUCAUSE Review: *4 Best Practices for Excellent Digital Communication*

Nudging Ahead blog on the Psychology Today website

Reflections

Goal setting is an activity that we should be doing with our students, but it often becomes difficult to monitor the progress of student goals given the many other things we are responsible for in our classes, programs, and schools. The benefits are worth it, though, as students with clear and attainable goals supported by adult educators persist longer in adult education programs. In addition, schools create an equitable environment that attends to the goals of all students. Technology can help achieve both these ends.

There are a number of technology options available to adult educators, backed by a foundation of SMART goal-setting and continual work on nudging students towards achieving their goals, that you can adopt as you develop a process that works best for you and your students. After selecting an edtech tool or tools for your learning environment, it will take time getting to know these tools to feel comfortable and adept in using them. You may want to start small with a few students or a pilot group, see how effective the tool or tools are with your students and what needs fine-tuning, and then plan for a larger roll-out with a larger group of students. The promise of this technology, though, lies not only in helping students reach their goals, but getting to know students at a deeper level as we help students overcome challenges and be with them on the road to success.

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