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Evidence-Based, Student-Centered Instructional Practices

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Background on Adult Learners

Adult education programs serve both native English speakers and learners whose first, or native, language is not English. Native English speakers attend adult basic education (ABE) classes to learn basic skills needed to improve their literacy levels; they attend adult secondary education (ASE) classes to earn high school equivalency certificates. Both ABE and ASE instruction help learners achieve other goals related to job, family, or further education. English language learners attend English as a second language (ESL), ABE, or workforce preparation classes to improve their oral and literacy skills in English and to achieve goals similar to those of native English speakers.

Audience for This Brief

This brief is written for teachers and program administrators seeking to implement evidence-based, student-centered instruction in programs and classes that include adults learning English as a second language. It will also be of use to professional developers who support teachers in this work.

Introduction

The field of adult education has a longstanding tradition of student-centered approaches to learning (see, e.g., Auerbach, 1992; Brookfield, 1995; Freire, 1970; Knowles, 1980; Peyton & Crandall, 1993; Weinstein, 1999). More recently, there has been an increased emphasis in K–12 and adult education on using evidence-based instructional practices. While there has been some tendency to dichotomize these two approaches, instruction of any kind is more effective when it is supported by evidence of its success (Purcell-Gates, Jacobson, & Degener, 2004; Reder, 2005; Smith, Harris, & Reder, 2005; St. Clair, Chen, & Taylor, 2003).

The Adult Education and Family Literacy Act, which is Title II of the Workforce Investment Act of 1998, requires that local education providers funded under the Act use instructional practices that are based on a strong research foundation. Therefore, it is critical that instructional developers in states, regions, and programs know the research base for specific instructional practices.

This brief describes evidence-based and studentcentered instruction and gives examples of instructional approaches that are supported by evidence. It also describes how teachers of adults learning English as a second language can work together in learning communities to increase their knowledge of and skills with student-centered instructional practices that are evidence-based.

Evidence-Based Instructional Practice

In an effort to inform and improve instructional practice at all levels of education, the U.S. Department of Education has sought over the past decade to develop a system of education based on a body of scientifically based research findings. This effort has included setting criteria for scientifically based research, defining evidence-based practice, and determining which instructional practices are supported by scientifically based research. Specific efforts in this regard include

- Commissioning expert panels to conduct extensive literature reviews and to identify instructional practices that are supported by research. These include The National Reading Panel (National Institute of Child Health and Human Development, 2000), The Reading Research Working Group (Kruidenier, 2002), and The National Literacy Panel on Language-Minority Children and Youth (August & Shanahan, 2006).
- Establishing the What Works Clearinghouse to review research on instructional practices; to determine which practices are supported by scientifically based research and share that information with the public; and to "bring rigorous

and relevant research, evaluation, and statistics to our nation's education system" (What Works Clearinghouse, 2008).

• Funding research studies that employ experimental methodologies. For example, in the project An Evaluation of the Impact of Explicit Literacy Instruction on Adult ESL Learners, the American Institutes for Research is studying the impact of explicit literacy instruction with adults learning English as a second language.

The What Works Clearinghouse has set rigorous standards for studies that qualify as scientifically based research. Studies that meet these standards

- Are based on well-designed and well-implemented experimental designs with randomized controlled trials (considered the "gold standard" because this research meets strong evidence standards) or quasi-experimental designs (research based on weaker evidence but that meets evidence standards with reservations).*
- Include valid and reliable outcome measures and have acceptable participant attrition rates, measures of effect that can be attributed solely to the intervention, and fully described outcome measures.
- Have been accepted by a peer-reviewed journal or approved by a panel of independent experts through a rigorous, objective, and scientific review.

Other groups have described scientifically based research and conducted reviews of studies using a broader definition (August & Shanahan, 2006; Condelli & Wrigley, 2004; Kruidenier, 2002; National Institute for Literacy, 2005). Studies included in these reviews

- Employed systematic, empirical methods that draw on observation or experiment and are appropriate to the questions asked. In reviews of research, intervention studies using experimental or quasi-experimental design were given highest priority; correlational, descriptive, or ethnographic studies may have been used to support experimental studies or may have been considered separately to assist theory development.
- Used rigorous data analyses that were adequate to test the stated hypothesis and justify the general conclusion.

- Relied on measurement or observational methods that provided valid data across evaluators and observers and across multiple measurements and observations.
- Were not all published in a peer-reviewed journal.

In all cases, the topic of the study, the intervention and assessment procedures, and the outcomes were described in sufficient detail such that the study could be replicated.

Student-Centered Language Instruction

Teaching methodologies used with adults learning English have evolved from what some have labeled teacher-centered, structure-based approaches (such as grammar-translation and audio-lingual) to more learnercentered, meaning-based approaches, including the communicative approach and task-based learning (Ellis, 2009; Kumaravadivelu, 2006; Lightbown & Spada, 2006; see Brown, 2001, for discussion). Teacher-centered approaches have been described as emphasizing a passive transfer of knowledge from teacher to student, while student-centered approaches seek to engage students actively in learning in ways that are appropriate for and relevant to them in their lives outside the classroom.

Communicative approaches to language teaching place emphasis on what learners know and can do with language, as well as what they want and need to do (Savignon, 1983). Student-centeredness is a foundational principle of communicative language teaching, which is "based on the premise that successful language learning involves not only knowledge of the structures and forms of a language, but also the functions and purposes that the language serves in different communicative settings" (Lightbown & Spada, 2006, p. 196). The importance of providing opportunities for meaningful interaction and connecting instruction to adult learners' lives outside the classroom is highlighted in many professional development materials (e.g., Celce-Murcía, 2001; National Center for Family Literacy and Center for Applied Linguistics, 2008).

Student-centered instruction emphasizes the following approaches:

• Building on learners' experiences and strengths while also teaching them how to use specific learning strategies to accomplish their goals (Center for Applied Linguistics, 2007; Ellis, 2008; Nunan, 1988)

- Focusing on the needs, skills, and interests of students while providing learning experiences that promote autonomy, choice, cooperation, collaboration, meaningful communication, and metacognitive awareness (Teachers of English to Speakers of Other Languages, 2009)
- Providing opportunities for students to use the target language to negotiate meaning with teachers and other students in group work, project work, and task-based interactions while also providing guidance, modeling, and feedback about progress (Adams, 2008; Anton, 1999; Beckett, 2005; Crookes & Chaudron, 2001; Gutierrez, 2008; Lin & Chien, 2009; Morris & Tarone, 2003; Reder, 2005; Reder, Harris, & Setzler, 2003; Zeng & Takatsuka, 2009; Zhao & Bitchener, 2007)
- Facilitating student work in pairs, in groups, or alone depending on the purpose of the activity, creating learning opportunities that mirror actual tasks in students' lives (Bell, 2004; Ellis, 2009)
- Using "techniques that enhance students' sense of competence and self-worth" (Brown, 2001, p. 47)

In summary, student-centered language instruction focuses on students' needs for learning and communicating effectively. The teacher provides opportunities for students to engage actively in meaningful communication, encourages them to take ownership of their own learning, and gives them explicit instruction in the content and language skills they need and in strategies for gaining that knowledge and those skills (Goldenberg, 2008). (For specific ways to promote learner engagement in instruction, see Sherris, in press.)

From Research to Practice

The four instructional approaches described in this section represent student-centered approaches that are supported by research:

- Promote interaction among learners
- Use the native language when possible and appropriate
- Connect instruction with learners' lives
- Teach learning strategies explicitly

Scientifically based research on the education of adults learning English as a second language is limited. As a

result, some of the approaches described in this brief do not meet the What Works Clearinghouse gold standard. The approach may be supported by only one or a few studies, or the research may have been conducted with native English speakers or with students in K–12 instructional settings rather than with adult English language learners. In thinking about research-based approaches and evidence-based instructional strategies, practitioners are encouraged to follow the guidance provided later in this brief regarding participation in learning communities to review instructional strategies and the research that supports them.

Promote Interaction Among Learners

Student-centered instruction includes providing opportunities for students to interact with each other. Although no scientifically based studies (as defined by the What Works Clearinghouse) have been conducted that document the effects of interaction on language learning in adult education settings, there is classroombased research that supports the notion that language learning is facilitated through opportunities for students to interact with each other in small groups or in pairs (Hellermann, 2007; Morris & Tarone, 2003). This research indicates that even students at beginning levels of English language learning can work productively in pairs (Albers, Hellermann, & Harris, in press). Research on classroom interaction shows that in interaction with others, students have opportunities to receive comprehensible input (language they understand), produce language (output) at their level of ability, receive feedback on their output, and make changes to it based on feedback (Gass, 1997; Long, 1996; Pica, 1994). In two often-cited studies with adult learners (Montgomery & Eisenstein, 1985; Savignon, 1972, as cited in Condelli & Wrigley, 2004), researchers found that students involved in communicative activities performed better than other students on specific tasks and tests.

The National Literacy Panel found that cooperative learning—students working interdependently on group instructional tasks and learning goals—had a positive impact on student learning, but the panel's report stresses that interactive approaches are more effective when combined with direct approaches, which provide explicit and direct teaching of specific skills or knowledge, such as letter-sound associations and vocabulary words (August & Shanahan, 2006). Second language researchers have found that focus on form in communicative lessons—that is, drawing learners' attention to

specific language structures in the context of meaningful activities-can result in learners incorporating new and more correct structures into their language use (Ellis, 2008; Ellis, Basturkmen, & Loewen, 2001). The Center for Research on Education, Diversity & Excellence, in a review of studies of English language learners in K-12 settings, concluded that process approaches are "not sufficient to promote acquisition of the specific skills that comprise reading and writing....Focused and explicit instruction in particular skills and sub-skills is called for if ELLs [English language learners] are to become efficient and effective readers and writers" (Genesee, Lindholm-Leary, Saunders, & Christian, 2006, pp. 139-140). Likewise, studies of reading instruction with adult learners, reviewed by Kruidenier (2002), show the importance of focusing on components of language while also giving learners opportunities to read widely in areas that interest them.

When facilitating interaction in classes, teachers might group students according to their level of English proficiency or their native language, or they might create heterogeneous groups, depending on the purposes of the course or of a specific lesson. In designing interactive activities, teachers need to think about the goals for and expected outcomes of the interactions, the most appropriate ways to group students, how much guidance to offer, and how much text or other supports (e.g., pictures, graphics, objects) to give students (Hellermann, 2005; Smith, Harris, & Reder, 2005). In line with research showing that interactive approaches are more effective when combined with direct approaches and a focus on form, teachers will want to consider when and how to teach and focus on specific language structures during interactive activities.

Materials for practitioners about classroom interaction offer examples of activities that can promote student interaction (see, e.g., Center for Applied Linguistics, 2007, pp. III-C, 99; Moss & Ross-Feldman, 2003; Smith, Harris, & Reder, 2005). A well-documented type of interactive activity in the second language acquisition literature is task-based or problem-based interaction, in which learners work in pairs or small groups to discuss a topic, address an issue, or solve a specific problem. The example below would be appropriate for adult English learners at the intermediate level. (For discussion of task- or problem-based interaction, see Mathews-Aydinli, 2007; for examples of task-based instructional activities for English language learning, see Nunan, 2004.)

You are a family of four looking for a place to live in [name local city/area]. The father has a job at [choose place] and earns [income]. The mother has a job at [choose place] and earns [income]. You have a 14-year-old son and a 7-year-old daughter who need to start school next week. You do not have a car. Where should you live? To make the decision, you will need to consider information about local schools, costs of available housing, public transportation, and shopping locations and prioritize your needs to make the best possible choice.

Use the Native Language When Possible and Appropriate

There is some evidence that use of students' native languages during instruction can promote learning. Condelli, Wrigley, and Yoon (2009), in a study of adult ESL classes, found positive gains in reading and oral English communication skills for students whose teachers used the native language for purposes such as clarifying concepts, introducing new ideas, or providing explanations. The National Literacy Panel, which reviewed studies of English language learners in K-12 programs, found no indication that use of the native language in instruction impeded academic achievement in either the native language or in English (August & Shanahan, 2006). Some of the studies reviewed found significant differences in learning outcomes, favoring students who received instruction in the native language. Using learners' native languages, or giving them opportunities to interact in their native languages, can enhance students' sense of competence and self-worth and possibly "free up cognitive resources for dealing with the learning tasks at hand" (Condelli & Wrigley, 2004, p. 38). Research also suggests that literacy and other skills and knowledge transfer across languages. "If you learn something in one language, you either already know it in (i.e., transfer it to) another language or you can more easily learn it in another language" (Goldenberg, 2008, p. 15).

It is not always possible for the teacher to use the students' native language(s). The teacher may not know the language(s), or the class may be diverse, with many different native languages spoken by the students. In

these cases, the teacher can support use of the native language by students in a number of ways. For example, students can

- Use their native language, if they prefer, to write in a journal.
- Read books in their native language and discuss them in groups either in their native language (with other speakers of the language) or in English.
- Interview family and community members in their native language and write a report or give a presentation to the class in their native language or in English.

The National Literacy Panel focused on studies in K–12 settings and the impact of native language use on reading, but their conclusion about use of the native language in instruction might be relevant to adult education settings as well:

As a group, these studies suggest an intriguing possibility: English-language learners may learn to read best if taught in both their native language and English from early in the process of formal schooling. Rather than confusing children, as some have feared, reading instruction in a familiar language may serve as a bridge to success in English because decoding, sound blending, and generic comprehension strategies clearly transfer between languages that use phonetic orthographies, such as Spanish, French, and English. (August & Shanahan, 2006, p. 397)

It is important to keep in mind, as Goldenberg (2008) points out, that with the research currently available, there are many questions yet to be answered. They include the following: Is primary language instruction more beneficial for some learners than for others? Is it more effective in some settings and with certain learner populations than others? What should be the relative emphasis on promoting knowledge and skills in the primary language and developing English language proficiency? (See Goldenberg, 2008, p. 12, for a list of questions to consider.)

Connect Instruction With Learners' Lives

Learners need to make connections between the language and content they are learning in class and their own realities in the world (Coatney, 2006). One study found that adults learning English as a second language learned more, as measured by scores on standardized tests, in classes where the teacher made connections between life outside the classroom and what was learned in the classroom, than in classes where teachers did not make such connections (Condelli, Wrigley, & Yoon, 2009).

One strategy for making these connections is to bring into class information and artifacts from places where learners live and work. Authentic materials to use in class include bus schedules, newspaper articles, grocery store circulars, takeout menus, and materials that students might choose to bring in and discuss or present or write about. These artifacts could also be used in task-based activities. For example, one student could have one type of information, such as a map of the city, and another would have related information, such as a bus or subway schedule, and together they determine the quickest way to get from one address to another.

Another strategy is to integrate learners' knowledge and experiences into the fabric of the class, as Weinstein (1999) describes, using "learners' lives as the curriculum." Topics for classroom discussion, reading, and writing come from issues that the learners in the class are facing and care about in their lives, such as raising children, becoming a citizen, or communicating effectively at work. (See Rivera, 1999, for discussion of the theoretical basis and research background for this strategy.)

An approach that has been used widely to connect learning with learners' lives and experiences is the language experience approach, in which learners, with guidance from the teacher, write texts about experiences they have had individually or as a group. If appropriate, learners read each others' narratives, give feedback, and revise their work. The level of teacher leadership and involvement and the specific process followed depend on the language and literacy levels of the students (Hall, 1977). (For examples of the language experience approach in practice, see National Center for Family Literacy and Center for Applied Linguistics, 2008.)

By starting with experiences that students have had and content they are familiar with, teachers can engage students in the learning experience. Materials can become progressively more challenging as students become more familiar with the content, a strategy that can facilitate comprehension and build background knowledge simultaneously (Goldenberg, 2008; Weinstein, 1999).

Teach Learning Strategies Explicitly

The importance of focusing specifically on the forms of language in the context of interactive, meaningful activities is discussed in previous sections. Learners also need to focus on and know how to use specific strategies for approaching learning and for understanding oral language and written texts. Two approaches that have been shown to be effective in K–12 settings are instructional conversations and reciprocal teaching (August & Shanahan, 2006; Goldenberg, 2008). In instructional conversations, teachers help students focus on the structure and meaning of oral or written texts. Reciprocal teaching, developed to improve the reading skills of students in elementary and intermediate grades, is a dialogue between teachers and students about a text.

With native English speakers in adult education programs in New York City, Rich and Shepherd (1993, as cited in Condelli & Wrigley, 2004) found positive results with the use of two strategies involved in reciprocal teaching: self-questioning and summarizing. Study results showed that adults who were taught to self-question and summarize outperformed other adults on tests of reading comprehension. Likewise, explicitly reviewing key information and key vocabulary in a text before reading it has been found to have a positive effect on English language learners' comprehension of texts (Chen & Graves, 1995, as cited in Condelli & Wrigley, 2004, pp. 39-40).

Research has also shown that skilled readers determine the importance of specific information while reading, monitor their comprehension, make predictions about text to come, and ask questions while reading (Di Tommaso, 2005). Skilled listeners make predictions while listening; listen selectively for particular words, phrases, or idea units; monitor their comprehension; and use a variety of clues to infer the meaning of unknown words (Cohen & Dörnyei, 2002; Graham, Santos, & Vanderplank, 2008). The teaching of and practice with these skills should be explicit and include introduction to and modeling of strategies and guided practice of new strategies (Graham & Macaro, 2008).

Support for Teachers in Implementing Student-Centered, Evidence-Based Practice

As can be seen from the brief review of evidence-based practice given here, it can be a challenge for teachers to stay abreast of research, know the effectiveness of different instructional practices based on research, and determine how that information can inform their instruction. One way to address this challenge is for teachers and mentors to form professional learning communities and study circles to read research studies and syntheses of research, discuss the implications for instruction, implement the strategies themselves, come back to the group to discuss their experiences, conduct their own classroom-based research, and do additional reading.

In learning communities or study circles, teachers might read specific studies or research reviews and discuss questions such as the following:

- What is the topic or focus of the study or of the studies reviewed? (e.g., development of reading comprehension)
- What is the guiding theoretical framework? (e.g., patterns and effects of peer interaction)
- What learner populations were involved in the study? (e.g., Were they adults learning English as a second language? In what type of program and at what level?)
- What research methodologies were used?
- How do the research methods used align with the criteria for scientifically based research and evidence-based practice?
- What is the strength of the findings?
- What implications do the findings have for my program and instruction?
- What am I going to try out in my classes?
- What did I learn from this experience?
- What do I want to know/read/investigate/ discuss now?

The studies and research reviews listed below can serve as the basis for study circle discussions. (Complete citations for these studies can be found in the reference list.)

Study Conducted With Adults Learning English

• Condelli, Wrigley, & Yoon (2009)

Reviews of Literature on Language Learning With Specific Focus on Scientifically Based Research

- August & Shanahan (2006)
- Condelli & Wrigley (2004)
- Goldenberg (2008)

Reviews of Literature on Reading With Specific Focus on Scientifically Based Research

- Adams & Burt (2002)
- Burt, Peyton, & Van Duzer (2005)
- Kruidenier (2002)
- Slavin & Cheung (2003)

Guidelines for Conducting Study Circles

- Center for Applied Linguistics (2007)
- Smith, Harris, & Reder (2005)

Conclusion

While many practitioners may be familiar and experienced with student-centered instruction, the use of scientifically based research and evidence-based practice to support instructional approaches may be new to them. There is research evidence to support studentcentered instruction, although much of the research has been conducted in K–12 settings. Teachers working together in learning communities can examine their instructional practices in light of research in order to implement practices that are evidence based.

Note

*In randomized controlled trials, random assignment is used to form two groups of study participants so that the two groups are similar on average in both observable and unobservable characteristics, and any differences in outcomes between the two groups are due to the intervention alone, within a known degree of statistical precision. In research conducted using a quasi-experimental design, the intervention group includes participants who were either self-selected (e.g., volunteers for the intervention program) or were selected through a process other than random assignment (along with a comparison group of nonparticipants). Because the groups in a quasi-experimental design may differ, the study must demonstrate that the intervention and comparison groups are equivalent on observable characteristics. (See What Works Clearinghouse, 2008, for a description.)

References

- Adams, R. (2008). Do second language learners benefit from interacting with each other? In A. Mackey (Ed.), *Conversational interaction in second language* acquisition: A collection of empirical studies (pp. 29-51). Oxford, England: Oxford University Press.
- Adams, R., & Burt, M. (2002). Research on reading development of adult English language learners: An annotated bibliography. Washington, DC: Center for Applied Linguistics. Retrieved from http://www.cal.org/caela/esl_ resources/bibliographies/readingbib.html

- Albers, S., Hellermann, J., & Harris, K. (2008). A case of a student with little prior formal education: Success and interactional practices in the language classroom. In Young-Scholten, M. (Ed.), *Proceedings of the third annual forum* for low-educated second language and literacy acquisition: Research, policy, and practice (pp. 109-124). Durham, England: Roundtuid.
- Anton, M. (1999). The discourse of a learner-centered classroom: Sociocultural perspectives on teacher-learner interaction in the second-language classroom. *Modern Language Journal, 83*(3), 303-318.
- Auerbach, E. R. (1992). Making meaning making change: Participatory curriculum development for adult ESL literacy. Washington, DC, and McHenry, IL: Center for Applied Linguistics and Delta Systems.
- August, D., & Shanahan, T. (Eds.). (2006). Executive summary. Developing literacy in second-language learners: Report of the National Literacy Panel on Language-Minority Children and Youth. Mahwah, NJ: Erlbaum. Retrieved from http://www.cal. org/projects/archive/nlpreports/executive_summary.pdf
- Beckett, G. (2005). Academic language and literacy socialization through project-based instruction: ESL student perspectives and issues. *Journal of Asian Pacific Communication*, 15(1), 191-206.
- Bell, J. (2004). Teaching multilevel classes in ESL. Toronto, Ontario, Canada: Pippin.
- Brookfield, S. (1995). Adult learning: An overview. In A. Tuinjman (Ed.), International encyclopedia of education. Oxford, England: Pergamon Press. Retrieved from http://www3.nl.edu/academics/cas/ace/facultypapers/StephenBrookfield_ AdultLearning.cfm
- Brown, H. D. (2001). Teaching by principles: An interactive approach to language pedagogy (2nd ed.). White Plains, NY: Pearson.
- Burt, M., Peyton, J. K., & Van Duzer, C. (2005). How should adult ESL reading instruction differ from ABE reading instruction? Washington, DC: Center for Applied Linguistics. Retrieved from http://www.cal.org/caela/esl_ resources/briefs/readingdif.html
- Celce-Murcía, M. (Ed.). (2001). Teaching English as a second or foreign language. Boston: Heinle & Heinle.
- Center for Applied Linguistics. (2007). *The CAELA guide for adult ESL trainers*. Washington, DC: Author. Retrieved from http://www.cal.org/caela/scb/ guide.html
- Coatney, S. (2006). The importance of background knowledge. *Teacher Librarian*, 34(1), 60.
- Cohen, A. D., & Dörnyei, Z. (2002). Focus on the language learner: Motivation, styles, and strategies. In N. Schmitt (Ed.), *An introduction to applied linguistics* (pp.170-190). London, England: Edward Arnold.
- Condelli, L., & Wrigley, H. S. (2004). Identifying promising interventions for adult ESL literacy students: A review of the literature. Washington, DC: U.S. Department of Education, Institute of Education Sciences.
- Condelli, L., Wrigley, H., & Yoon, K. S. (2009). "What works" for adult literacy students of English as a second language. In S. Reder & J. Bynner (Eds.), *Tracking adult literacy and numeracy skills: Findings from longitudinal research* (pp. 132-159). New York and London: Routledge.
- Crookes, G., & Chaudron, C. (2001). Guidelines for language classroom instruction. In M. Celce-Murcía (Ed.), *Teaching English as a second or foreign language* (pp. 29-42). Boston: Heinle & Heinle.
- Di Tommaso, K. (2005). Strategies to facilitate reading comprehension in college transition students (Research to Practice Brief No. 5). Boston: National College Transition Network, World Education. Retrieved from http://www .collegetransition.org/promising/rp5.html
- Ellis, R. (2008). *Principles of instructed second language acquisition*. Washington, DC: Center for Applied Linguistics. Retrieved from http://www.cal.org/resources/digest_digest_pdfs/Instructed2ndLangFinalWeb.pdf
- Ellis, R. (2009). Task-based language teaching: Sorting out the misunderstandings. International Journal of Applied Linguistics, 19(3), 221-246.

- Ellis, R., Basturkmen, H., & Loewen, S. (2001). Learner uptake in communicative ESL lessons. *Language Learning*, 51, 281-318.
- Freire, P. (1970). Pedagogy of the oppressed. New York: Continuum.
- Gass, S. M. (1997). Input, interaction, and the second language learner. Mahwah, NJ: Erlbaum.
- Genesee, F., Lindholm-Leary, K., Saunders, W., & Christian, D. (2006). Educating English language learners: A synthesis of research evidence. New York: Cambridge University Press.
- Goldenberg, C. (2008). Teaching English language learners: What the research does—and does not—say. *American Educator, 32,* 8-23, 42-44. Retrieved from http://archive.aft.org/pubs-reports/american_educator/issues/ summer08/goldenberg.pdf
- Graham, S., & Macaro, E. (2008). Strategy instruction in listening for lowerintermediate learners of French. Language Learning, 58, 747–783.
- Graham, S., Santos, D., & Vanderplank, R. (2008). Listening comprehension and strategy use: A longitudinal exploration. *System, 36*, 52–68.
- Gutierrez, A. G. (2008). Microgenesis, method and object: A study of collaborative activity in a Spanish as a foreign language classroom. *Applied Linguistics*, 29(1), 120–148.
- Hall, M. A. (1977). The language experience approach for teaching reading: A research perspective (2nd ed.) Newark, DE: International Reading Association.
- Hellerman, J. (2005). Turn taking and opening interactions. *Focus on Basics, 8* (A). Retrieved from http://www.ncsall.net/?id=993
- Hellermann, J. (2007). The development of practices for action in classroom dyadic interaction: Focus on task openings. *Modern Language Journal*, 91(1), 557-570.
- Knowles, M. S. (1980). The modern practice of adult education: From pedagogy to andragogy. Englewood Cliffs, NJ: Prentice Hall/Cambridge.
- Kruidenier, J. (2002). Research-based principles for adult basic education reading instruction. Washington, DC: National Institute for Literacy. Retrieved from http://www.nifl.gov/publications/pdf/adult_ed_02.pdf
- Kumaravadivelu, B. (2006). Understanding language teaching: From method to postmethod. Mahwah, NJ: Erlbaum.
- Lightbown, P., & Spada, N. (2006). *How languages are learned* (3rd ed.). Oxford, England: Oxford University Press.
- Lin, G. H. C., & Chien, P. S. C. (2009). An investigation into the effectiveness of peer feedback. *Journal of Applied Foreign Languages, 3,* 79-87.
- Long, M. H. (1996). The role of the linguistic environment in second language acquisition. In W. C. Ritchie & T. K. Bhatia (Eds.), *Handbook of research on language acquisition: Vol. 2. Second language acquisition* (pp. 413-468). New York: Academic Press.
- Mathews-Aydinli, J. (2007). Problem-based learning and adult English language learners. Washington, DC: Center for Applied Linguistics. Retrieved from http://www.cal.org/caela/esl_resources/briefs/problembased.html
- Montgomery, C., & Eisenstein, M. (1985). Real reality revisited: An experimental communicative course in ESL. TESOL Quarterly, 19, 315-333.
- Morris, F. A., & Tarone, E. E. (2003). Impact of classroom dynamics on the effectiveness of recasts in second language acquisition. *Language Learning*, 53, 325-368.
- Moss, D., & Ross-Feldman, L. (2003). Second language acquisition in adults: From research to practice. Washington, DC: Center for Applied Linguistics. Retrieved from http://www.cal.org/caela/esl_resources/digests/SLA.html
- National Center for Family Literacy & Center for Applied Linguistics. (2008). *Practitioner toolkit: Working with adult English language learners.* Louisville, KY, and Washington, DC: Authors. Retrieved from http://www.cal.org/caela/ tools/program_development/prac_toolkit.html

- National Institute for Literacy. (2005). What is scientifically based research? Using research and reason in education: A guide for teachers. Washington, DC: Author. Retrieved from http://www.nifl.gov/publications/pdf/science_research. pdf
- National Institute of Child Health and Human Development. (2000). National Reading Panel. Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction. Washington, DC: Author. Retrieved from http://www.nichd.nih.gov/publications/nrp/ upload/smallbook_pdf.pdf
- Nunan, D. (1988). The learner-centered curriculum: A study in second language teaching. Cambridge, England: Cambridge University Press.
- Nunan, D. (2004). Task-based language teaching. Cambridge, England: Cambridge University Press.
- Peyton, J. K., & Crandall, J. A. (1993). Approaches to adult ESL literacy instruction. Washington, DC, and McHenry, IL: Center for Applied Linguistics and Delta Systems.
- Pica, T. (1994). Research on negotiation: What does it reveal about secondlanguage learning conditions, processes, and outcomes? *Language Learning*, 44, 493-527.
- Purcell-Gates, V., Jacobson, E., & Degener, S. (2004). Print literacy development: Uniting cognitive and social practice theories. Cambridge, MA: Harvard University Press.
- Reder, S. (2005). The "Lab School." Focus on Basics: Connecting Research and Practice, 8(A), 1-7. Retrieved from http://www.ncsall.net/index.php?id=987
- Reder, S., Harris, K., & Setzler, K. (2003). The multimedia adult learner corpus. TESOL Quarterly, 37, 546-557.
- Rivera, K. (1999). Popular research and social transformation: A communitybased approach to critical pedagogy. TESOL Quarterly, 33, 485-500.
- Savignon, S. J. (1983). Communicative competence: Theory and classroom practice. Reading, MA: Addison Wesley.
- Sherris, A. (in press). Learner engagement when working with adult English language learners. Washington, DC: Center for Applied Linguistics.
- Slavin, R. E., & Cheung, A. (2003). Effective reading programs for English language learners: A best-evidence synthesis. Baltimore: Johns Hopkins University, Center for Research on the Education of Students Placed at Risk. Retrieved from http://www.successforall.net/_images/pdfs/EffectiveRdgProgs.pdf
- Smith, C., Harris, K., & Reder, S. (2005). Applying research findings to instruction for adult English language learners. Washington, DC: Center for Applied Linguistics. Retrieved from http://www.cal.org/caela/esl_resources/briefs/apply.pdf
- St. Clair, R., Chen, C., & Taylor, L. (2003). How adult literacy practitioners use research. College Station: Texas A&M University, Texas Center for the Advancement of Literacy and Learning. Retrieved from http://www-tcall. tamu.edu/orp/orp2.htm
- Teachers of English to Speakers of Other Languages. (2009). Standards for ESL/EFL teachers of adults. Alexandria, VA: Author.
- Weinstein, G. (1999). Learners' lives as curriculum: Six journeys to immigrant literacy. Washington, DC, and McHenry, IL: Center for Applied Linguistics and Delta Systems.
- What Works Clearinghouse. (2008). WWC procedures and standards bandbook. Retrieved from http://ies.ed.gov/ncee/wwc/references/idocviewer/doc. aspx?docid=19&tocid=1
- Zeng, G., & Takatsuka, S. (2009). Text-based peer-peer collaborative dialogue in a computer-mediated learning environment in the EFL context. *System*, 37, 434-446.
- Zhao, S. Y., & Bitchener, J. (2007). Incidental focus on form in teacher–learner and learner–learner interactions. *System, 35,* 431-447.

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