5

Individualized Group Instruction: A Reality of Adult Basic Education

Perrine Robinson-Geller

Observations of classes suggest that English for speakers of other languages (ESOL) programs typically employ group instruction and volunteer programs use one-on-one instruction, but adult basic education (ABE) and general educational development (GED) programs use a hybrid model of instruction (Beder, Tomkins, Medina, Riccioni, & Deng, 2006), in which students gather in a group with a teacher but work independently on individualized assignments while the teacher assigns work, corrects student work, keeps records, and assists students as needed. In this chapter, we refer to this hybrid model of instruction as individualized group instruction (IGI).³¹ In IGI, a group of students has a set time and place for class and a specific teacher. In other words, it is a setting that could be run as a traditional teacher-led, whole-group class. However, the students work independently, on individually assigned work, although one-on-one interactions with the teacher occur as students need help.

³¹John Comings coined this term in a meeting at Rutgers University in 2003.

Teachers alternate between helping students, correcting, and assigning new work.

In the 1960s and early 1970s, the adult education field referred to this type of instruction as *individualized instruction* but this term does not distinguish either self-study or one-on-one tutoring from *in-class* individualized instruction. The benefit of using a specific term (IGI) for individualized in-class instruction is that it describes more clearly a common type of instruction practice. This article describes IGI; the factors that led to and perpetuate IGI; the prevalence of IGI in the ABE field now; what is known about the effectiveness of IGI; and implications for policy, practice, and research related to IGI.

Terminology

ABE programs generally divide their classes into three major groups: ABE (adult native speakers reading at the 0-8 level), adult secondary education ([ASE], often GED students reading at the 9-12 level), and ESOL. ABE is further divided into low-level adult literacy students (nonreaders and very low-level readers at the 0-4 level), and the pre-GED students (adults reading at the 5-8 grade level). IGI is commonly found in ABE, pre-GED, and GED classes, but not in ESOL classes, which are usually grouped by oral language level (beginning, intermediate, and advanced), and learner-to-learner interaction is considered essential to oral language acquisition. This chapter uses ABE to encompass ABE, pre-GED, ASE, and GED classes, but it excludes volunteer one-on-one tutoring programs. Because the focus of this chapter is on ABE classes, I refrain from using the broader term adult education, which covers everything from literacy learners to professional continuing education and leisure learning.

METHODOLOGY

Because little has been written about IGI, our research team at Rutgers University conducted a comprehensive literature review about the history of IGI. The team also conducted an informal e-mail survey of state directors of adult education regarding the incidence of IGI in their state. In addition, the team conducted 19 interviews with people who have been involved in adult literacy education for many years. To locate interviewees

who were involved in ABE when IGI became an accepted model of instruction, we posted a request on national ABE listservs; from those who responded, we selected participants who had both long tenure in the field and extensive backgrounds in ABE instruction. The respondents averaged 25 years of experience in ABE, with a range from 3 years to more than 50 years of experience. Respondents were current and former teachers, staff developers, program administrators, state-level administrators (including former state directors), researchers, and instructional-materials vendors. We used the data from the literature and the interviews to identify themes and issues about the use of IGI in ABE classrooms.

Description of IGI

IGI is not generally found in the K–12 or higher education context, but it has been a part of ABE since the modern era of ABE began in the late 1960s and early 1970s. IGI appealed to ABE practitioners because it was a manageable solution to the difficulties of serving the unique needs of adult students who are not required to be in classes, who fit classes in and around their busy schedules, who read at many different levels, and whose education competes with many other demands of life for their attention and energy. Although IGI is a very common approach to dealing with these unique needs, it is nearly invisible in the research and practitioner literature.

There are few descriptions of IGI in the ABE literature. Quigley (1997) presented a fictionalized account of a typical adult student's initial encounter with a classroom, which is in fact an IGI class. The student arrives at an ongoing class, with intake test results in hand, and a teacher assigns a workbook based on a review of the student's scores. The student is told to sit at a table, read a passage, and then try to answer the questions at the end. The teacher tells the student that she will be back to check on her in a while and then works with other students, eventually coming back to the new student to correct her work.

Beder and Medina (2001) conducted an observational study of 20 ABE classrooms in eight states. Their description of classrooms provides a picture of an IGI setting:

Learners in classes practicing individualized instruction were typically assigned folders or portfolios to hold their work. When students came to class, they picked up their folders, which often contained work the teacher had corrected since the last class. The learners then worked independently on sequenced materials that were commercially published. When learners had

difficulty with an exercise, they called on a teacher or aide for assistance, and help was given, sometimes in the form of a one-on-one mini-lesson. (p. 47)

IGI takes several forms. In some IGI classes, students never work in groups and structured interaction between students is minimal; students work individually through their workbooks or textbooks. In other IGI classes, students sometimes gather in impromptu small groups for minilessons, or the teacher may gather them for a short whole-group activity followed by individual tasks. Another form of IGI is the learning center, usually a computer lab where students come in on their own schedule and work primarily on computer-assisted instruction, getting assistance from an instructor as needed. In general, IGI is characterized by the following:

- Dependence on materials (usually commercially produced, sequential, and leveled by difficulty).
- Initial placement, by the teacher, into leveled instructional materials by means of diagnostic testing.
- Students working independently, with teachers assisting as needed.
- Progression through the materials monitored by teachers correcting students' work and by testing, with teachers then assigning additional or different work based on students' progress.

In IGI classes, teachers may assign instructional materials from different workbook series from different publishers, and they may include some non-commercial teacher-designed materials as well. The materials used in IGI are not necessarily materials that were designed for use by individual students working independently. When students turn to a teacher for assistance with their learning, the teacher may provide direct instruction, or may decide that the materials do not suit that student and change the materials or provide additional instructional materials to ensure that the student understands the concept before progressing. In an IGI classroom, the student is responsible for learning the content, primarily from the materials, and the teacher functions as the "educational manager" (Hickok & Moore, 1978).

FACTORS THAT LED TO AND PERPETUATE INDIVIDUALIZED GROUP INSTRUCTION

In this section, we cover a range of factors that provided the rationale for using IGI, and contributed to the incidence and persistence of IGI in ABE over the past three decades, including the following:

- The nature of federal funding, which had an enormous influence on initial development of the ABE field through the provision of money and guidance for teacher training, and material and resources development.
- The popularity of programmed instruction, which used self-paced, self-study materials based on the ideas of behaviorist psychology in which learning is broken down into small pieces.
- The adult learning theories of the time, which emphasized the independent student.
- The availability of materials, which were initially scarce, increased during this time. Many sets of instructional materials were designed for individualized instruction and self-paced learning.
- The structural nature of ABE, in which programs needed to recognize
 the realities of a student population with differing needs and busy
 lives, leading to mixed-level classes and sporadic attendance patterns.

The combination of these factors is characterized succinctly by one of our interview respondents, Beth³² (who has 25 years of experience in ABE, including state-level staff development):

My impression is that it [IGI] was there from the start. It's a kind of chicken and egg situation. . . . Nobody told me that they consciously went over to this model, which they call the learning lab model. . . . It coincided with a philosophy in adult education about individualized instruction, seeing adults as self-motivated people whose individual goals needed to be the driving force for the instructional plan and the curriculum. Most of that research came from higher education, Malcolm Knowles and the like. Also, that whole movement at the time, the learning lab, the emphasis on skills, the whole behaviorist sort of mindset about learning and the fact that learning could be reinforced by sitting and encountering content and so on. So, I think it just happened that various things coincided at the time adult basic education began to be publicly funded.

Federal Funding

The federal government, which was influential in the development of the ABE field (Radwin, 1984), adopted and strongly supported individualized instruction, as IGI was known then. In 1964, the federal government apportioned ABE funds as a part of President Johnson's War on Poverty.

³²All interview respondents' names are pseudonyms.

Federal ABE Enrollment 1965-1974

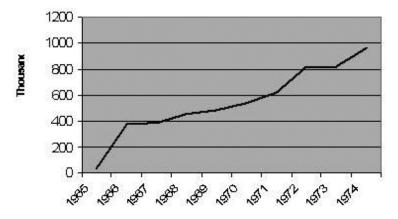


FIG. 5.1. ABE enrollment 1965-1974 (From Radwin, 1984).

The funds were provided as grants to states on a formula basis to provide classes to low-literate adults. The money was used to support local ABE programs run by public elementary, secondary, or adult schools; in 1968, private not-for-profit agencies were added as eligible grant recipients (Eyre, 1998). The newly available federal funds led to the modern era of the ABE field (Hunter & Harman, 1979; Leahy, 1991; Mangano, 1969; Mezirow, Darkenwald, & Knox, 1975; Ulmer & Dorland, 1981). Prior to 1965, only 8 states had significant ABE programs, but by 1967, all 50 states and the territories had programs in place (Comptroller General of the United States, 1975). According to Mezirow and colleagues (1975), "Almost half of the largest cities in the country used the federal funds to establish ABE classes for the first time" (p. 114).

The impact of the 1964 Adult Education Act on the delivery of ABE was explosive. In the first 2 years, enrollment jumped tenfold, going from 38,000 in 1965 to 389,000 in 1967 (Comptroller General of the United States, 1975). The rapid increases in enrollments continued (see Fig. 5.1) and by 1975, enrollment was just over 1 million (General Accounting Office, 1995).

During this era of explosive growth, programs, teachers, and administrators, needed methods and approaches that would work best with the adult population. The federal government was aware that developing an ABE system rapidly required more than direct funding of programs. Section 309 of the 1966 Adult Education Act provided the federal government with discretionary funds for professional development, and materials

and resources development (Radwin, 1984). Professional development training institutes run by the federal government were the major sources of information, training, and guides for ABE practitioners.

The professional development activities initially took the form of summer teacher training institutes, which were a continuation of federally organized but privately funded (Ford Foundation) institutes that ran from 1964 to 1966 (Leahy, 1991; Radwin, 1984). These institutes provided training to teachers and administrators, and produced materials, such as training and curriculum guides. The institutes were expensive to run, costing as much as \$1,200 per person in 1971, and the investment was lost when participants left the ABE field (Leahy, 1991).

In 1972, the federal government instituted a regional approach to staff development with the goal of training people more efficiently. This regional approach included supporting postsecondary institutions to create credit classes in ABE and increase the number of graduate adult education programs. The goal was to establish a group of experts and professionals in the field (Radwin, 1984). The university-driven approach was not sustained once federal control of staff development ended, and only a few universities currently prepare ABE teachers.

In 1974, Section 309 grants ended, and new federal legislation required that states set aside 15% (later 10%) of their allocation for staff development and special projects, thus effectively ending federal control of ABE professional development. At this point, ABE teacher training became the responsibility of the states, and each state handled it differently (Leahy, 1991; Radwin, 1984). States continue to be responsible for providing professional development to enhance the practice of teachers and administrators. However, many states do not provide initial training for new ABE teachers (Smith & Hofer, 2003).

The impact of the federal staff development effort was strong. According to Radwin (1984), from 1967 to 1974, approximately 83,000 ABE teachers and administrators participated in federally sponsored training activities. By providing funding and training, the federal government established the structure and operation of the ABE field, including the types of curriculum offered and instructional delivery methods employed. The training institutes covered the nature and characteristics of adult students and how best to work with this population. They also placed an emphasis on programmed instruction and the use of the technology of the time (e.g., filmstrips, tape recorders, and controlled-reader machines) in instruction. According to Leahy (1991), the 1967 overview seminar for state directors included a presentation on "programmed instruction and learning (including a discussion of teacher

attitudes toward both). . . . Some sessions were designed to 'model' individualized instruction" (p. 9). These were the early seeds of the establishment of IGI as a classroom model in ABE.

Programmed Instruction

In the late 1960s and early 1970s, programmed instruction, based on the work of the psychologist B.F. Skinner, was a new and promising approach to instructional delivery and curriculum development. In programmed instruction, subject matter is broken into a series of small steps with clearly defined goals. Students work their way through the material individually and at their own pace. They receive immediate feedback on the accuracy of their responses, and mastery of a lesson is required prior to continuing on to the next step (Martin, 1966). The role of the teacher is significantly different from the role played in traditional classrooms. The teacher assigns the starting point and monitors progress, functions as a coach and an administrator, and does not, generally, directly impart information. The burden of actual instruction is on the programmed materials (Lane & Lewis, 1971; Martin, 1966; Mocker & Sherk, 1970; Teachey & Carter, 1971).

The newly forming ABE field was interested in programmed instruction. For example, the North Carolina community colleges used programmed instruction for adult education, establishing learning labs throughout the state (Teachey & Carter, 1971). These learning labs used programmed instructional materials, with a teacher present to provide help, guidance, and direct instruction as needed. This was unlike pure programmed instruction, which was often a self-study approach with minimal instructor interaction. New York quickly followed North Carolina's example, starting with a few initial pilot programs that eventually spread across the state (Kacandes, 1969). By 1971, at least 10 states had adopted North Carolina's model of learning labs utilizing programmed instructional materials as part of their adult education program (Teachey & Carter, 1971) and eventually this model was commonplace throughout the country. The advantages of programmed instructional materials for ABE, according to experts at that time, included:

- Individualization, which addressed the needs of a heterogeneous population (Mocker & Sherk, 1970; Murphy, 1969).
- Promotion of active rather than passive learning (Sepede, 1972).

- Improvement of attendance for students who attended erratically or who dropped out and then returned; such students could pick up where they left off and neither held back the class nor were left behind by it (Teachey & Carter, 1971).
- Continuous reinforcement and mastery of a concept before moving on to the next one (Lane & Lewis, 1971; Martin, 1966).
- Initial diagnostic testing and assignment of appropriate modules addressed specific student needs (students who tested into the same level but had different patterns of errors could be better served; Murphy, 1969).
- Students working at their own pace to complete their modules (Teachey & Carter, 1971).

Adult Learning Theories

Knowles's (1970) work on adult education and andragogy (ways of thinking about working with adult students) was influential in the development of IGI. Although the concept of andragogy later came under criticism and was modified, it made an enormous contribution to the way the adult student was taught and viewed (Merriam & Brockett, 1997). Knowles (1970) proposed four tenets about adult students:

- 1. *Self-concept*: Adults are self-directed persons able to, and insistent on, making their own decisions and resentful of being treated as dependent persons.
- 2. *Experience*: Adults come to learning with a foundation of experience that can be a resource for learning. If that experience is not valued and respected, the adults feel rejected.
- 3. *Readiness to learn*: Adults are most interested in learning that is connected to their social roles.
- 4. *Orientation to learning*: Adults expect to immediately apply what they learn to their lives.

Tough's work (reviewed in Merriam & Brockett, 1997) in the early 1970s showed that adults generally planned, implemented, and evaluated learning projects themselves; they were self-directed. The ideas of Knowles and Tough supported the use of IGI, which requires students to be independent. Sepede (1972) described how adult learning theory is a justification for individualized instruction in which learners work independently but a teacher is present to help:

If self-direction is a goal of an ABE project, and it should be, adults must be given the opportunity to develop self-direction. They must have a chance to experience it through independent study on an individual basis. The learning packets can provide a viable learning experience. The learning packet is a self-contained set of teaching-learning materials designed to teach a single concept and designed to guide the learner through various independent study materials for individual and independent use. (p. 289)

A stated goal of ABE teachers is to meet students' needs (Beder & Medina, 2001). IGI practitioners believe that IGI is suited to accomplishing that goal because each student is treated individually and learning plans are established based on each student's ability level. In this way, IGI is considered student-centered. The following comment from an interview respondent illustrates this view:

It's very difficult to teach a room full of people the same issues when they don't all need the same issues. So, you necessarily have to break it up, and apply a more individualized approach to whatever that person needs. So it's more student centered than one would think. (Tom, 20 years ABE experience)

Availability of Materials

In IGI, instructional materials are crucial. Students primarily learn the content from the materials rather than the teacher, so teachers are able to simultaneously handle many students working on entirely different content. Without suitable materials, IGI would not have become an established part of ABE.

Initially, appropriate instructional materials were scarce. In 1964, the U.S. Department of Education charged a task force, under the direction of the Director of the Adult Education Branch of the U.S. Office of Education, with evaluating the then currently available instructional materials for use in the newly legislated ABE programs. The task force assessed the materials for clarity, accuracy, aptness of illustrations, general usefulness, and various technical characteristics. The task force found that "One of the most critical problems in adult basic education is the dearth of suitable instructional materials" (Montclair State College, 1970).

In 1966, Greenleigh Associates made a more detailed effort to evaluate the relative merits of the four existing, commercially available adult learning systems (Brown & Newman, 1970). The Greenleigh study was a 1-year,

three-state project in which teachers with varying levels of education and professional preparation used four adult learning systems in classes for adults on public assistance. Students were randomly assigned to the different classes. The purpose of the study was twofold: to assess the effectiveness of the materials and to discover the optimal level of education and professional preparedness of ABE teachers. The four systems included one with a lock-step, choral-reading, whole-group approach; two that assumed a heterogeneous class with some whole-group and some small group work; and one that employed programmed instruction and assumed self-paced, individualized work. The study assessed each learning system according to specific criteria, including the following:

- Ability to teach low literates to read in a short time.
- Ability to help low literates qualify for jobs or job training.
- Ability to work with the "least possible skill on the part of the teachers" (p. 9).
- Ability to accommodate students at different levels.
- Feasibility in terms of cost and administration (Greenleigh Associates, 1966).

No particular learning system emerged as significantly better than the others. All four taught some people how to read but none were judged to be particularly effective in quickly teaching adults how to read or meeting all of the other criteria. However, the study tested only the four adult learning systems that existed at that time.³³ By the completion of the study, additional systems that would have met the criteria of cost and feasibility were available (McCalley, 1966), an indication that materials developers had recognized and were making efforts to correct the problem of limited materials suitable for ABE instruction.

The efforts by government, publishing companies, and ABE programs—such as Job Corps, Adult Performance Level, and the Cherry Hill Conference—to create materials for use in ABE classrooms contributed to the establishment of IGI.

The government funded or implemented several projects to develop materials that were designed for, or eventually used for ABE. For example,

³³The initial design called for selecting the best 4 systems out of the approximately 20 the researchers believed to exist. However, at the initial phase of the study only 2 systems existed and 2 more were available by the time data collection started.

the Civilian Conservation Centers (part of the Job Corps program) run by the Department of Agriculture and Interior, had a uniform ABE curriculum, which they designed as an individualized instruction model, but, as described by LaPlante (1969), was an IGI model. A task force, headed by Douglas Porter from Harvard University, designed an individualized program of graded self-instructional materials, which were assigned based on results of placement tests and were accompanied by frequent comprehension and mastery checks. Teachers were responsible for initial diagnostic testing and assignment, as well as monitoring progress and providing assistance as needed. The higher level materials (above Grade 3) were primarily graded-reading selections on a variety of topics. Eventually, Job Corps found that the reading selections (about 2,000 of them) were too limited, and they engaged a publisher to develop additional materials. This unknown publisher was allowed to make these new materials commercially available; by 1969, 2,000 school systems had purchased the materials for their remedial reading programs (LaPlante, 1969). Additionally, in the late 1960s, the Job Corps disseminated their techniques and materials to community action programs, the Department of Defense, and urban school districts, by training teachers and sharing materials. In this way, their system of individualized instruction moved into the general ABE field.

Job Corps was not the only large-scale program to develop a self-paced system for ABE instruction. The military had programs—such as Project 100,000—that it used to educate low-literate recruits. The basic skills instruction component was based on intensive, self-paced, individualized instruction (Montclair State College, 1970).

Commercial publishers also played an important role in developing materials for IGI. In the mid-1960s, publishers had initially responded to the newly mandated ABE programs by examining the materials that were already in their catalogs, suggesting that these would suffice. However, it quickly became clear (from the task force report and the Greenleigh evaluation) that these existing materials were not sufficient to meet the needs of a varied ABE student population, and by 1970 the publishers had begun to develop profitable materials that would meet the needs of the ABE field (McCalley, 1966; Montclair State College, 1970).

The Cherry Hill Conference in 1970, funded by a Section 309 grant, brought together commercial publishers, ABE personnel, university researchers, and federal officials to establish cooperation and communication aimed at encouraging the creation of additional commercially available materials for ABE instruction (Montclair State College, 1970;

Radwin, 1984; Ulmer & Dorland, 1981). This conference was an opportunity for the publishers to hear from the field, and for publishers to describe their development efforts and challenges. Presentations from people in the ABE field varied in their vision, and in some cases disagreed with each other, but they were universal in claiming that traditional instructional approaches would not work. Many advocated for an individualized, flexible, self-paced, learning lab approach with programmed materials. One of the final recommendations from the Cherry Hill Conference was "the production and use of program learning material," urging publishers and authors to "design and adapt materials which lend themselves to the adult learning laboratory concept" (Montclair State College, 1970, p. 98). In the closing speech, Paul Delker, at that time the director of the Division of Adult Education, said:

My priorities would go for training teachers to be knowledgeable about materials, giving them the skills to interpret an individual's needs in relation to existing materials and would go into developing systems more along the line of individually prescribed instruction; a system for integrating existing materials and new materials as they are developed. (Montclair State College, 1970)

According to Radwin (1984), Delker and the Division of Adult Education were strong forces in shaping the nascent ABE field. They considered it their job to help develop and define the ABE field, and they wielded a great deal of power through direct oversight and control of Section 309 funds.³⁴ Therefore, these comments carried significant weight as the publishers left the conference and prepared to develop materials for ABE. Teachers and ABE programs also created materials appropriate for IGI classes. For example, in 1972, an article in *Adult Leadership* (at that time a major practitioner journal) advocated individualizing ABE instruction through the creation of learning "packets." Practitioners were urged to create individualized, self-paced learning packets that included the following:

- The concept to be covered.
- Instructional and behavioral objectives.
- Pretests.

³⁴As mentioned earlier, Section 309 of the Adult Education Act of 1966 provided federally controlled discretionary money for teacher training and special projects of both national and local importance.

- Sequential learning activities to implement the content.
- Diverse methodologies for motivation and presentation.
- Independent study projects for further depth and breadth of learning.

The packets were not to be too broad or they would intimidate the student, and they were not to be too narrow or they would not provide sufficient learning (Sepede, 1972). In a field with part-time teachers who were paid only for teaching time, creation of such packets was impractical.

However, a few programs used Section 309 monies to create curriculum materials. Most, but not all, of these materials had a limited distribution (Radwin, 1984). Section 309 also funded the Adult Performance Level (APL) project at the University of Texas at Austin, the beginning of a large movement toward competency-based education in ABE. The idea behind competency-based education is that students should be competent to perform certain life skill activities proficiently, such as filling out a job application. Curricular decisions and evaluations are thus tied to the desired competencies. Initially, the APL project's goal was to define the competencies that adults needed to be successful (Beder, 2003). The APL project was enormously influential: By 1980, two thirds of ABE programs were using competency-based models, with about one third using the APL approach specifically (Young, 1980).

Competency-based education is not an instructional delivery method. Rather, it is a concept of the purpose of literacy education as functional; that is, one attends literacy education to become more successful in one's life by being better able to perform the functions required by society. It is also an approach to placement, assessment, curriculum development, and evaluation. Crandall et al. (1984) called it an "instructional management system." However, any method of instruction can be used to teach the desired competencies, and the APL project developed different styles of competency-based instructional materials, including materials for IGI classes. The APL project designed a series of modules for the individualized ABE classroom. The modules covered diagnosis, prescription, instructional activities, and evaluation for specified APL goals and objectives.

In describing the rationale for creating their modules Hickok and Moore (1978) described what is essentially an IGI class, and they pointed out the difficulties of running such a class without access to materials. They said that individualized instruction contains four elements: diagnosis, prescription, instruction and classroom management, and evaluation. They asserted that:

All four elements must be complete before individualized instruction is complete and all four steps must be performed for and with every learner. Each learner will approach each phase of the process at a different rate and time. Each learner will be prescribed different materials and activities to match his/her diagnosed needs. Learners will use the materials in different ways, in varying amounts of involvement with the teacher (who is the educational manager of the learner's prescription). Finally, each learner can demonstrate mastery by a variety of means. Since it's rather exhausting to think about all of this, much less do it, the APL staff determined to structure modules to meet as many instructional situations as possible. (Hickok & Moore, 1978, p. 41)

Due to time and resource constraints, modules were not completed for all of the APL goals and objectives. At the conclusion of their article, Hickok and Moore called for "forward looking" commercial publishers to continue their work. Commercial publishers had resources to create instruction materials based on the perceived needs of the field.

Commercial materials for ABE did become increasingly available through the 1970s and into the early 1980s. According to one of our interviewees, some commercial publishers worked with adult educators, paying them to be consultants and adapting materials they wrote. In one northeastern state, the state department of education encouraged this by recommending people to the publishers as possible consultants. By 1984, Crandall and colleagues surveyed 213 adult literacy programs across a variety of provider types (state/LEA, CBO, corrections, postsecondary, military, and employment and training) and found that the majority of materials used were commercially produced (Crandall et al., 1984). The ABE field was established with an understanding that individualized instruction within a group context was a desirable and efficient approach to teaching basic skills and literacy to the many adults who needed to be served and whose enrollment patterns were irregular. For many, IGI became (and still is) the way in which ABE is taught. Initially there was top-down pressure that encouraged IGI as a preferred model. One of our interview respondents remembers it this way:

When I first came into this work, there was a lot coming from the state level that supported that approach [IGI] because there was a lot of emphasis on individual goal setting, customized individual learning plans for students. . . I also have a feeling that the whole idea of the lab and the scientific approach to having little pieces of knowledge available to students either through technology or workbooks was very much considered state of the art. (Beth, 25 years ABE experience)

As those who were trained in the federally funded institutes went out into the field and started to administer and teach in ABE programs, they put many of the ideas from the institutes into practice and others learned from them. Interview respondent Rebecca, who has 30 years of experience in ABE, described the process as she remembers it:

It was THE model even for part-time evening classes. . . . They were proposing that this is the way you might do it. [My] state . . . is very local controlled, always has been. And so it was offered as a model. . . . [T]here was . . . some dissemination of the model through [federally funded regional teacher training institutes] . . . [and] lots of discussion about it. I don't know if I would use the word advocated but it was definitely out there. And most programs that were just coming up were looking to their neighbors to see how [they] were doing this and what's working and it proliferated that way. In fact, it's still out there big time.

Once the staff development efforts became regionalized, the importance of individualizing instruction became, in some cases, codified in the state professional development plans. For example, the 1971 state plans for both North Carolina and South Carolina list having their ABE teaching staff individualize instruction as a professional development goal (Southern Regional Education Board, 1971). In 1975, North Carolina reported that, "Individualized materials programmed to the student's educational level are used frequently" (North Carolina State Department of Community Colleges, 1975). New York established a system of adult learning labs that were used either in conjunction with traditional classes or in lieu of them. These learning labs were a form of IGI in that students came in and worked on their assigned materials individually. Instructors were available for assistance, assignments, assessment and reassessment, and encouragement (Kacandes, 1969; Murphy, 1969; New York State Education Department, 1971). One interview respondent from New York remembers transitioning his small literacy program to a larger program funded by the Adult Education Act. For the first year, the program ran with traditional whole-group instruction. Then the New York State Department of Education heard about the work being done in North Carolina with mobile learning labs using an IGI model and instituted similar learning labs in New York (although from the beginning New York advocated a model that included informal, small group work). According to our interview respondents, and supported by Kacandes (1969), IGI and learning labs became standard in New York (except in New York City)

due to top-down pressure, the idea being that this model would better suit the characteristics of the ABE students.

The Last Gamble on Education study (Mezirow et al., 1975) found that some variant of the learning lab was present in two out of three cities in their study. Among the final recommendations of this highly influential work was the suggestion that an increase in individualized instruction within classrooms and an increase in the number of learning laboratories would be helpful for ABE students. In 1980, an evaluation of programs funded by the Adult Education Act found that much of the instruction in these programs was individualized (especially in non-ESOL programs). Although it is not clear exactly what is meant by individualized instruction, it is also reported that teachers worked with an average of 48 students per year, so it is unlikely that the model used was direct one-to-one tutoring (Young, 1980).

The federal and state efforts to increase the use of IGI had an effect. IGI became ingrained in ABE to the point where it was often the custom rather than a choice. Interview respondent Beth, who does staff development that encourages teachers to move away from IGI, saw it this way:

[O]ne of the issues is that it is hard for teachers to break [away from IGI], even though they get information from us and training in teaching a course that requires working with larger groups. It's hard for them to get out of this because there is the heavy weight of custom and routine and it has always been done this way. (Beth, 25 years ABE experience)

The Structure of Adult Education

IGI also became—and remained—prevalent due to its ability to handle the pressures caused by the specific practices of ABE. This chapter now examines these pressures and how IGI relieves them.

Enrollment and Participation. Open enrollment, in which students enter and leave programs at any time, has been part of ABE since its inception in the 1960s. This is, in part, due to the nature of the students in adult education classes. Adult students have pressures such as jobs and child care requirements that often make it difficult to attend class regularly. Students can choose to either drop out entirely or take a break from (stop out of) programs for reasons such as family, job, or health pressures. Students also leave programs when they have met their short-term goal or found that the

particular program is not a good match for their needs and goals (Fingeret & Drennon, 1997; Quigley, 1997). In 1993, the National Evaluation of Adult Education Programs (NEAEP) found that ASE students participated for a median of 28 hours and ABE students for a median of 35 hours, and that 19% of all students (ABE, ASE, and ESOL) leave before 12 hours of instruction (Development Associates, Inc., 1993). Although it peaks in September and January, demand for ABE services occurs year-round (Young, Fleischman, Fitzgerald, & Morgan, 1995). The empty seats left by dropouts or stopouts are often filled immediately, leading to the very common pattern of open-entry/open-exit continuous enrollment, in which students enter or leave the class at any time during the year (Beder, 1996; Quigley, 2000). Programs have an incentive to maintain open-entry policies because funding is often based on enrollment figures, and they wish to retain and assure future funding.

However, the classroom situation created by open-entry policies is difficult for teachers to manage: "Evidence from the teacher survey and interviews suggest that continuous enrollment of new students is seriously detrimental to effective teaching and learning" (Mezirow et al., 1975, p. 146). Nearly 30 years later, Smith and Hofer (2003), in their study of ABE teachers, observed, "Teachers grappled with class groupings (individualized instruction versus class instruction), which were complicated by enrollment policies in the majority of programs that allowed students to enter and exit at any time during the semester or cycle" (p. 24). For each class session, teachers do not know if they will have new students in the class, and they do not know which of their enrolled students will attend that day. Additionally, if students are absent, teachers do not know if they plan to return or if they have left the program, making planning sequenced group instruction difficult and frustrating. IGI is a pragmatic approach to this situation; whether or not a student is present does not affect the learning activities of the rest of the class. There is no penalty for absent students, as they can continue from where they left off when they return to class. Teachers can integrate new students into the class as they arrive, as returning students continue to work on their individual assignments.

One of our interviewees described the connection between IGI and fluctuating enrollment and participation:

Another strength is the need to accommodate the nature of the population, which really sort of drops in and drops out on odd schedules. It's hard enough to get a classroom full of students without also saying, you all have to start on this date in order to keep our class full. I mean that's just not how

this population works. Their lives are very complex . . . and they have multiple responsibilities and multiple barriers and so, they can't start on the first day of the quarter and go until the end of the quarter. They're in the middle of the quarter [and] suddenly they get laid off and want to come back to school and only have a few weeks to try to do something and so I think that accommodating the unique nature of the population is something that's a little bit easier in an individualized model. (Cheryl, 25 years ABE experience)

Multilevel Classes. In ABE classes, students frequently are at widely differing reading, writing, math, and background knowledge levels. It is possible, even common, to have low-level ABE students mixed with GED students in the same class, particularly in smaller programs that cannot offer a large number of different classes. Even when students test into similar levels, they may have different academic needs (i.e., one may need help with math, another with reading, and a third with writing) and yet they are all in the same class.

Mixed levels have been an issue in ABE for many years. In 1975, Mezirow found "variation in skill and ability levels" to be one of the most significant factors impeding teaching and learning (Mezirow et al., 1975).

Open-entry/open-exit continuous enrollment contributes to mixed levels because it is hard to keep a particular class at the same level as students move in and out. In rural areas, programs may not have enough students at a particular level and must combine levels to fill a class.

The following quotes from our interviews demonstrate the ways in which mixed-level classes seem to drive the use of IGI.

At first, I remember being totally overwhelmed, and I lost a lot of students because I was trying to teach everybody the same thing, which wasn't what they needed. (Sharon, 15 years ABE experience)

The only way you can gather together 20 students for a class is to have students at a variety of levels with a variety of needs. And so, administratively this kind of an approach [IGI] allows you to create "classes" where you might not be able to do it if it had to be a specific group type experience. (Cheryl, 25 years ABE experience)

They have to maintain a certain number of students to keep the class open and you've only got 20 ABE students, then, you have all levels and that sort of drives the individualized instruction. (Pam, 34 years ABE experience)

Staffing. ABE teachers are generally part time, many with experience teaching in K–12, have limited (frequently unpaid) opportunities for professional development; pay is low and many teachers receive few or no benefits

(Smith & Hofer, 2003; Young et al., 1995). Young and colleagues (1995) found that slightly more than half of the instructors in their study were teaching in more than one area (e.g., ABE and GED) rather than specializing. Smith and Hofer (2003) found that many teachers were isolated from both their program directors and from other teachers in their program, and had few opportunities to share ideas and experiences. Additionally, some teachers work at sites that are physically removed from the main program site, and they may be the only teachers at their location. Smith and Hofer (2003) also found that only 54% of the teachers in their sample received any paid preparation time. The preparation time that teachers did receive varied greatly, with some receiving as little as 1 hour of paid preparation for every 5 hours of teaching, and others receiving 1 hour of paid preparation for every hour of teaching. Young and colleagues (1995) found that half of the part-time staff in ABE had been teaching for less than 3 years.

An IGI teacher, in a strictly IGI setting, does not plan traditional wholeclass lessons, nor individual tutoring sessions. Rather, these teachers oversee the topics and levels for each learner, basing their decisions on what they know of the learner's skills, previous work, and diagnostic testing. If they choose to enhance the IGI model with small group work or wholegroup work, they must also plan and organize it. This style of teaching differs from standard K–12 or higher education instruction. None of our interviewees reported receiving staff development or preservice training specifically in how to conduct IGI classes. Rather, they were socialized into running their classes this way:

I think I got about an hour's orientation from the other teacher who was leaving. (Ann, 17 years ABE experience)

Back in '87 or '88, when I [began volunteering] . . . they had a small community oriented program run by a church, and they were open two nights a week for a couple hours, and I went there to volunteer my services as a tutor, and they just turned me loose on the room, and said, just wander around and help whoever needs help. They were all doing worksheets and writing, math, it was probably about 15, 20 people in the room. (Tom, 20 years ABE experience)

Well, I think I was a pretty typical adult educator. You just show up and nobody tells you . . . what to do, and you just kind of figure it out on your own. I think the very, very, very first thing I did was working at an off-site GED classroom, and we just had GED workbooks. . . . In college, I was a psych major and I had taken some teaching courses, but I didn't really, until that point, consider myself a teacher, and nobody had ever really told me

how to do it, and so I just started by using workbooks and that's how everybody in the program did it. Their program, at that time, [had about] seven different teachers and they all taught the same way, and I think some of them still do even now. So, I didn't know there would be any other way to do it, and that's how I did it. (Tony, 20 years ABE experience)

With a teaching staff that often has little training, little or no preparation time, and limited experience teaching adults, IGI—through programmed instruction in workbooks—provides a consistency of instruction that might otherwise be missing. IGI does not require teachers to invest much in preparation. As one interview respondent put it:

[IGI] doesn't take a lot of skill, and it doesn't take planning. And that's key, because most of us in adult [education] are part time and a lot of [us] don't get paid for prep time. . . . And it's something that you can do without having to plan. (Nancy, 20 years ABE experience)

However, IGI neither requires nor excludes extensive planning and preparation; in a recent study involving IGI instruction, researchers observed examples of both minimal and extensive planning and teaching in IGI classrooms (Beder et al., 2006).

By being responsive to individual curricular and participation needs without placing an undue burden on either the teacher or the other students, IGI both allows and supports an instructional setting in which open-entry/open-exit enrollment, sporadic participation, mixed-level classes, and part-time teaching staff continue to exist.

THE PREVALENCE OF IGI

There is almost no information about the prevalence of IGI in ABE programs nationwide, and many of the studies that investigated classroom practices in ABE did not distinguish what we call IGI from one-on-one tutoring, individualized instruction, or self-study. Since the 1970s, the number of references to "individualized instruction" has decreased in the research literature, perhaps because practitioners in the field no longer felt the need to differentiate this type of instruction from other types. IGI had almost become synonymous with ABE instruction.

Young (1980) conducted a national study describing the state-administered programs of the federal Adult Education Act. This study surveyed and interviewed state directors, local program directors, teachers, and students.

The study found that mode of instruction—individualized, self-study or small group, and classroom (p. 152)—was one of the variables that could be used to differentiate between ABE, ASE, and ESOL teachers: ABE and ASE teachers were more likely to use individualized instruction, whereas ESOL teachers were more likely to use classroom (group) instruction. However, the paper detailing the findings of the study did not provide definitions of each of the modes of instruction, did not make clear why self-study and small group were considered a single instructional mode, or whether individualized implied one-to-one tutoring. The study found that slightly more than half of the ABE (57%) and ASE (52%) teachers used individualized instruction, and given that the lowest student—teacher ratio was 13 to 1, these instructors were probably using IGI.

Crandall and colleagues (1984) investigated effective literacy practices across six provider types (state/LEA, employment and training, corrections, postsecondary, community-based organizations, and the military). One of the eight major components of each program studied was instructional methods and materials. This study defined individual instruction as a one-to-one learning experience, and group instruction as a teacher presenting a designated topic to the entire class with the students expected to work at the same pace on the same materials (Crandall et al., 1984). Based on their findings, the researchers argued that a program could be successful regardless of which grouping strategy programs use, but no information specific to IGI can be deduced from this study.

In 1990, Kutner and colleagues published a study that was intended to be an overview of how ABE programs work. The purpose was to identify areas of interest for further nationally representative research. The study compiled data from a literature review, informal interviews with eight state directors of adult education, and in-depth case studies of nine programs. They found that "individualized instruction has become the principal format in basic skills classes" (Kutner, Furey, Webb, & Gadsden, 1990, p. 20). However, this study does not distinguish between tutoring and IGI.

Solórzano (1993), in a review of effective practices in adult literacy programs, addressed instructional group size briefly, simply drawing distinctions among one-on-one tutoring, small group instruction, and class-room-based teaching, and it is unclear which of these might represent IGI. Because the entire discussion is less than one page in a hundred-plus page report, it is also unclear whether the effectiveness of IGI can be deduced.

In 1992, the NEAEP conducted two surveys: a universe survey that collected data from 2,619 programs (93% of the local programs receiving federal basic state grants funds in 1990) and a program profile survey that

collected more detailed data from a nationally representative sample of 131 programs. Program profile surveys, completed by program directors, addressed program-level, rather than the class-level, factors. For example, the survey asked, "To what extent does your program use each of the following learning environments: . . ." and provided eight choices as a response, including: individualized instruction (e.g., one-on-one tutoring), individualized self-study with no instructor or tutor present, and classroom style instruction with 1 or more aides (Development Associates, Inc., 1992, Appendix C). None of these choices directly describes the IGI model. However, the item pertaining to individualized instruction offers tutoring as an example of one type of individualized instruction. More than half of the nationally representative sample of 131 programs (57%) reported that they used individualized instruction. However, only 20% of those programs reported that none or almost none of their clients received instruction in a group setting (implying that up to 80% of their clients received instruction in some kind of a group setting). These two statistics—57% using individualized methods and 80% providing group settings—suggest that IGI was a common mode of instruction.

To gain an understanding of the prevalence of IGI, my colleagues and I at Rutgers sent an e-mail to all state directors of education defining IGI, asking how common it was in their state. We received replies from 14 states; because none of the states kept formal statistics on this, these replies included only estimates of the prevalence of IGI. Two of the state directors replied with commentary but did not indicate prevalence in their state. Two other directors indicated that this was a common practice but did not provide an estimate of prevalence, responding with words such as "many" and "a significant number." Of the remaining 10 states, 5 indicated that IGI was used in 75% or more of their programs, with 2 of these indicating greater than 95% of their programs used IGI. An additional 3 states indicated that 40% to 50% of their programs used IGI. Two states estimated that IGI was used in 25% or less of their programs, with 1 of those indicating that they estimated the use at less than 15%. Although informal and general, these results do suggest that IGI is highly prevalent in ABE and that its prevalence may vary significantly by state.

THE EFFECTIVENESS OF IGI

We found no studies of the effectiveness of the IGI model as we have defined it; however, one small study looked carefully at students in classrooms that appeared to be IGI. Venezky, Sabatini, Brooks, and Carino

(1996) undertook three student case studies to gauge what was learned directly from adult literacy instruction. The researchers presented a profile of each of the students' coursework and their academic strengths and weaknesses. The instructional settings for two of the three students clearly followed an IGI model, with individual workbooks assigned based on students' performance on initial mastery tests. The study was conducted in Delaware, which required that programs employing individualized skill instruction use an individualized skills program called Learning Unlimited. According to the authors, these materials were used in the majority of state-funded programs (Venezky et al., 1996). None of the students had major learning breakthroughs during the time that they participated in this study; they exhibited slow and sometimes uneven progress. The authors stated that the classroom work was focused on specific academic skills, with little time for building strong fluency in any one of them. Also, all the students had difficulty with more complex tasks (e.g., organization in writing), which were not well addressed in the instruction. Additionally, the diagnostic information available to the teachers was task specific and did not address broader issues such as level of phonological awareness or logical reasoning. The main conclusion reached by this study was that although students may make some progress with this approach (individualized self-paced instruction, with an emphasis on basic skills), it is flawed and might not be a good use of resources. There is a real limitation to generalizing the results of this study because it is based on only three case studies.

If the goal of literacy instruction is to pass the GED, one might surmise that IGI, with its focus on basic skills and worksheets, would be effective. If, however, the goal of literacy is to master social practices related to literacy, one might hypothesize that IGI would be less effective: "Although literacy requires knowledge of the technical skills of forming letters, spelling words, decoding and so on, these technical skills are useless without social knowledge that attaches meaning to words *in context*" (Fingeret & Drennon, 1997, p. 62). IGI classes, with their emphasis on commercial materials, may offer some simulated rehearsal in the social practices of literacy, such as filling out a sample job application or driver's license form. However, rehearsing, although necessary and helpful, is not the same as the actual performance.

The effectiveness of IGI was a key issue emerging from the interviews with our informants in the field, and their comments indicate some common questions about the effectiveness and quality of instruction, including

questions about skills learned, amount of instruction received, time on task, and learning style in IGI. The questions are discussed in the sections that follow.

What Is the Range of Skills Addressed and Learned in IGI?

Tony, who has 20 years of experience in ABE, explained the issue this way:

I think another weakness is that [IGI is] very narrow, in that it presents a really narrow focus on what success is. So success would be just considered getting through the pages or getting to the next stage and the next stage, whereas to be successful in the world, there's a whole lot more to it. You have to . . . be able to work with others. You have to be able to work on a team. And you have to be able to negotiate, cooperate, plan, and all those other things. And all of that is not part of this type of instruction. So I think by trying to do things more in a group, where all those other skills are brought in, it's really going to be much better for the student.

Because IGI is dependent on commercially available materials, and teachers determine assignments, it is likely that the majority of IGI classes might fall into the decontextualized discrete skills instruction category, rather than the meaning-making category, of Beder and Medina's (2001) typology of ABE classes. Discrete skills instruction classes place an emphasis on the development of isolated skills in traditional subject areas such as reading and mathematics. Assuming that IGI classes are focused on discrete basic skills, we do not know the extent to which IGI classes address the broader and more complex skills needed to integrate and transfer the discrete skills from the workbook to more demanding academic tasks and then to life tasks. This is consistent with the findings of Venezky and colleagues (1996), who suggested that learners in an IGI-like setting struggled with more complex issues, such as organizing information for writing. It is also unknown the extent to which IGI helps students develop "soft skills," such as the ability to work with others and participate as a member of a team, skills that are considered necessary for the modern workforce (Equipped for the Future, 2005; Kane, Berryman, Goslin, & Meltzer, 1990).

Discussion and incorporation of metacognitive techniques in ABE instruction can help learners become stronger and more able literacy learners (Paris & Parecki, 1993). Metacognition—learners thinking and learning about how to learn—is a powerful tool. It involves reflection on

the learning tasks and appropriate strategies needed to accomplish those tasks, as well as reflection on one's own abilities and motivation. Mikulecky and Lloyd (1997) found that adult students in workplace literacy programs that incorporated metacognition into instruction—with regularly planned discussions about learner beliefs and plans regarding literacy—demonstrated increased self-efficacy in both literacy tasks and plans for future literacy activities and education. Although IGI has the potential, through intensive teacher—learner interaction, to offer instruction in metacognition, it is unlikely that the commercial ABE materials provide much guidance in metacognition, as they generally require short factual answers rather than reflective activities.

How Much Actual Instruction Is Happening in IGI?

In IGI classes, a teacher might rotate among learners to see who needs help and then deliver significant one-on-one instruction throughout the class session; or a teacher might sit behind a desk and announce that learners should come up if they have a question (Beder et al., 2006; Mezirow et al., 1975). Several of the interviews illustrate the range of teacher behavior in IGI:

I went around to every student because a lot of times the ones who needed the help most would never ask you so I just continually circulated around the room. I could even tell what problem on the page [that] student was going to miss. If you really get to know your students then all that comes naturally. (Sharon, 27 years ABE experience)

What I see a lot is Not-teaching . . . I see teachers circulating around saying, "If you need any help give me a call," and the students don't know if they need help or not. And, so, they become much less effective. I would see a lot of teachers sitting at the desk reading the newspaper. Bored. Students are also bored because all they have is the workbook and they don't know each other. You wonder why people leave? . . . I have very little good to say about the "here's your workbook . . . call me if you need me." And that's what it turned into unfortunately. (Pam, 30 years ABE experience)

I've seen it overdone, where teachers just pointed to the materials and said, "Work on that." (Darryl, 40 years ABE experience)

Although IGI teachers determine what the learner will be working on, they are not the primary transmitter of information as they might be in a traditional class; rather, it is mainly the materials that transmit information.

In the IGI model, the teacher is supposed to help each student to attain the desired skills, if and when the student needs help, but it is primarily through the interaction between the student and the materials that the learner acquires basic literacy skills.

When one of our interview respondents ran a staff development project that asked teachers for lesson plans, one teacher sent a list of names with the workbook page number that each learner was on (Beth, 25 years ABE experience). The idea of the materials "doing the teaching" comes out of the programmed instruction movement (Martin, 1966; Mocker & Sherk, 1970; Teachey & Carter, 1971). This does not mean that IGI teachers never provide direct instruction. However, there is the potential for such instruction to be largely responsive and reactive, which can be quite stressful for the teacher, as illustrated by the following interview response:

I came out of K–12 as a high school English teacher for a couple of years and to go into this center where it was very individualized was a huge switch for me from working with groups of students, all kind of at the same level, to going to a center where I literally within minutes would switch from teaching somebody decoding at a very basic level to teaching someone trigonometry. . . . It was very well organized and so I felt confident about how to follow students' progress and how to know what I needed to work on with a student. I felt pretty supported in terms of what I needed to do, but it was also a little bit daunting and challenging to have the immediate switch. You're just "click, click, click, click, all day long from one subject to another, from a young high school student to an older reentering vocational student, to a single parent who had some emotional issues, to somebody who had learning disabilities . . . just constant moment by moment switching of ways of interrelating with the students. I remember at the end of the day, I was always exhausted. (Cheryl, 25 years ABE experience)

How Much Time on Task Happens in IGI?

Waiting is a problem in IGI that affects both teachers and learners. Teachers have the pressure of knowing that someone always needs their attention, and learners have the frustration of being stuck and not being able to continue without teacher intervention and assistance. Venezky and colleagues (1996) identified the same problem in their case studies, finding that instruction in which the teacher switches from one student to another, and from one topic to another, created a situation in which the teachers were unable to provide the level of individualized instruction needed by each student, a situation mirrored in comments from our interviewees.

[IGI] means that students can . . . get exactly the help that they need. But sometimes it's not possible to do that if you've got six people lined up waiting for your help, five of them are going to be sitting there twiddling their thumbs. I mean, they may well get to a point where they're just so stuck that they can't do anything without some assistance and so, that part of it can be frustrating for the teacher who has this sense that people are just waiting and waiting, and for the student who gets the sense that everyone else is coming before him. (Cheryl, 25 years ABE experience)

For the teacher, [IGI] poses a real class management challenge if you have a few students who are a lot more needy than everybody else. And they tend to preempt all your time, and then the other students get very resentful. Like the students who are so very needy get very resentful if you are not there all the time, because they can't proceed without you. (Ann, 17 years ABE experience)

A common solution to the problem of students who have to wait for teachers is to form impromptu small groups of learners who are struggling with the same topic and provide a minilesson to the group. It is not known the extent to which learners' waiting for teacher attention affects the quality and effectiveness of instruction.

For What Profiles of Learners Does IGI Work Best?

One of the purported benefits of IGI is that it is individualized to each student—the students work at their own pace on what they need to do to accomplish their educational goals. However, ABE students are highly diverse in measures of socioeconomic status, age, race, ethnicity, gender, educational history (including special education and learning difficulties), learning style, and native language. One question about IGI's effectiveness, therefore, is whether IGI works equally well for all adult students. For example, some of our interviewees felt that the skills level of students—particularly students with low levels of basic skills—could impact how independently a student could work in the IGI model. Other interviewees felt that the students' approach to learning could interact with IGI instruction, and they hypothesized that students who are less self-directed and do not ask for help might be less successful in the IGI model.

Another drawback is that when adults are working on an individual basis, the more aggressive [students] will ask for assistance but the more passive individuals will not. Although they might need some assistance they won't seek that out. (Beth, 24 years ABE experience)

I think a real weakness of the model is if you have a student who is inclined to drift it really lets them drift. You know if you have a student who is inclined to not have a sense of the steps in this learning task. And they've got that whole book in front of them. And they get bored with this one so they try a different one, several pages over. Or they like that story in the first chapter so they go back to it. It's not very efficient in that sense for those students. (Ann, 17 years ABE experience)

A student who is not real oriented toward independent reading has a real problem with [IGI]. (Ann, 17 years ABE experience)

Is There a Cohort in IGI and Does That Improve Retention and Learning?

Another issue raised by the interviews was that of community and cohort. Strict IGI provides minimal opportunities for the formation of cohorts, which recent research has shown to be important to adult students. Cohorts provide both emotional and academic achievement support. Additionally they can help broaden the perspectives of the students within the group (Drago-Severson et al., 2001; Fingeret & Drennon, 1997; Kegan et al., 2001).

I think that if somebody is just working [alone] they don't develop . . . the social cohort. The people aren't really getting a social experience when they come, and they're not making friends, and they don't have other people to support, and they don't maybe realize [that] they feel isolated. They won't realize that they're not the only person in this predicament, so those will feel dumb and maybe think they're the only ones. (Nancy, 20 years ABE experience)

The interviews not only illuminated problems and concerns of community and cohort but also potential problems in the relationship between the teacher and student.

Now the weakness that I have encountered is that [IGI] eliminates any kind of group cohesiveness, and that's a big issue because if there is a lack of socialization the individuals don't get to know each other and it is much easier for them to drop out of a program. They won't be noticed by anyone else. They might be noticed by the instructor that has come to know them and talk to them but . . . if the instructor has as many as 10–15 students in a program, she or he will only get to the students once during the course of the time the student is working. And so, that might not be enough connection,

enough human connection to make a difference for that individual to think, "Yes I am doing the right thing, I am committed to this and I've got the assistance that I need." (Louise, 24 years ABE experience)

I think that it allows ... you to connect very directly with students... working with that person one on one. The student ... knows you. The students can't hide in the back of the classroom and just slide. ... So I think that the understanding of exactly where students are and the ability to target instruction very specifically are two good things. (Cheryl, 25 years ABE experience)

It is not known what the social relationships are in an IGI setting. It is possible that certain IGI variations, such as classes that include some group work, may foster cohort formation, and this may affect student academic achievement (Kegan et al., 2001). It is also possible that the potential for a close relationship with the teacher may somehow change or have an effect on the need for a cohort. The interviews hint at the complexity of the issue of social relations in the ABE IGI classroom, which may make future research difficult but also of great importance.

How Effective Are the Materials?

Materials—books, software, video, or other types—are vital to the IGI model. However, little is known about the efficacy of the commercially available materials in terms of their ability to teach reading and other basic skills. Rigg and Kazemek (1985) highlighted a number of concerns with commercially available ABE materials. They argued that the reading passages are generally short and use artificial language that conforms to readability formulas. This precludes real character or plot development, or even simple clarity. They went on to say, "The compression forced on the writer means that the reader must supply an enormous amount of background knowledge and must apply this knowledge quickly and effectively with only minimal clues from the page. That is, the materials require a quite proficient reader, just the opposite of the adult students actually trying to use these texts" (Rigg & Kazemek, 1985, p. 727). It is likely that these problems still exist in current materials; they generally have short passages that are at specified reading levels. One experienced ABE teacher raised a related issue regarding the commercial material she used in an IGI class:

We were using mostly instructional materials that kind of mimic the GED. Using the IGI model with those materials, I believe left our students with a really, really, choppy view of the world. Pages 3 through 7 would be a piece

about the American Revolution and then pages 9 through 12 would be a piece about World War II. (Ann, 17 years ABE experience)

Other studies have raised problems of bias, and racial and gender stereotyping in ABE materials (Coles, 1977; Quigley & Holsinger, 1993; Sandlin, 2000).

The use of authentic materials has been shown to increase literacy practices outside of the classroom (Purcell-Gates, Degener, Jacobson, & Soler, 2000). Therefore, this is an area in which IGI may not be as effective because authentic materials (items directly from, and connected to, students' lives) are unlikely to be widely used in an IGI context. This is because to use such materials requires planning, input from students (on what is connected to and important in their lives), and less dependence on commercial products.

What Kinds of Variations Are There in IGI and Which Ones Are Beneficial?

Not all IGI classes are what I have referred to as "pure IGI." Teachers may group students for a variety of purposes, even in an IGI setting. These reasons may include providing minilessons or enrichment activities. There is no research about which types of variations in IGI classes are the most beneficial for helping students achieve the goals of their educational experience.

IMPLICATIONS FOR RESEARCH, POLICY, AND PRACTICE

Research

The difficulties we encountered when trying to find information for this study of classroom practice in ABE have broader implications for further research in ABE. The model of classroom instruction is an important variable that needs to be more carefully considered and controlled for. An ABE class that uses IGI may be very different from one that uses group instruction. Therefore, assumptions made about one type of class will not necessarily carry over to another. More research needs to be done at the classroom level, looking at all models of instruction in ABE. Currently, studies tend to be done either at the individual student level, or at the program, state, or national level.

The main question for research related to IGI that emerged from this review is how effective IGI is, as compared to classroom or group instruction (either small or large group) or compared to one-on-one tutoring, in helping adult students acquire basic literacy skills and proficiencies, expand literacy practices, develop critical thinking and metacognitive skills, and increase "soft skills" such as the ability to work in teams and solve problems. Is IGI more effective with one particular population of adult student than another?

The research that would answer this question would, of necessity, be complicated. Would it, for example, be possible to find and match a large enough sample of adult students and classes, some of which participated in IGI, some in classroom or group instruction, some in one-on-one tutoring, some who engaged in self-study, and some who did not participate in adult education at all? Additionally, the groups would have to be able to sustain the high attrition rates, common in adult education, and still yield solid data. Such a study boggles the mind, and might in part explain why there is so little research into the effectiveness of IGI. However, given the concerns that many of our interviewees had about the quality and efficacy of IGI, research on such a prevalent form of instruction seems warranted.

Policy

Current policies, at all levels (federal, state, and local), contribute to an ABE culture that preserves the structures—such as open enrollment, mixed levels, and underprepared teaching staff—that drive and underlie the IGI model. For example, many teachers do not have any formal coursework in ABE prior to teaching; in many states only K-12 certification is required (Smith & Hofer, 2003). It appears from our informal survey of state directors of adult education that state policies, in particular, may have a significant role in the instructional models used in the classroom. Currently, we do not know if policies should encourage or discourage IGI because we have no outcome or efficacy data. Until such data are available, policymakers should consider policies that do not force an IGI situation, but rather encourage choice and innovation on the part of programs and teachers, allowing them to design programs they believe will best foster student learning and retention. For example, policies that provide greater funding and opportunities for teacher training and professional development, and program funding policies that take into account enrollment patterns of students who stop out (Belzer, 1998), as demands of their life and time require, would be helpful.

Practice

An ABE class can mean a traditional group instruction model, an IGI model, or some other model. Making distinctions between tutoring and IGI when using the terms *individualized instruction*, and between class and classroom instruction when using the term *group instruction* would be helpful. Clarity of terms could lead to improved communication and understanding among researchers, policymakers, administrators, and practitioners, which might make discussing its prevalence and effectiveness easier.

CONCLUSION

IGI has become so ingrained in the practice of ABE that it is rarely reflected on, discussed, or even acknowledged. At the outset of this project, several very knowledgeable adult education researchers did not expect us to uncover any sense of where IGI came from; their impression was that it was always part of ABE. They did not think that it had developed out of any thoughtful tradition. Instead, what we found is that, at the beginning, IGI was considered state-of-the-art teaching for the ABE population. There was a conscious effort to promote IGI as the preferred method of ABE instruction. However, over time, it has become an established practice, particularly in adult literacy and ASE instruction, partially because it addresses several unique features in the delivery of education to adults, including continuous enrollment, mixed levels, sporadic attendance, and part-time teaching staff.

What I have tried to do here is to deconstruct this established—and yet nearly invisible—classroom model to acknowledge and identify it. The hope is that this will initiate a dialogue within the field about the pros and cons of using this method, that using IGI (or not using it) will become a considered choice, not just "the way it's done," and that the field will consciously look at methodologies that address the realities of the classroom. Freire (1970) spoke of "naming the word to name to world"; that is to give the forces in our lives names, so that they can be examined, understood, and reflected on, and then action can be taken to transform them into something better. Here we have taken the first step

by naming, describing, and beginning to examine IGI. Hopefully this will spark discussion and research into IGI and this will help us to teach more effectively and therefore foster more student success.

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