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ABSTRACT

While a college degree is an important economic and social resource for graduating-age students, more and more students are entering colleges and universities without the basic skills necessary to achieve academic success, and a growing number are low-literate or limited English speaking. Community colleges have an important role in ensuring vocational and academic success for these students, but it is important that, instead of offering watered-down remedial curricula, creative and vigorous approaches be utilized. Studies have consistently shown that approaches which provide basic skills training together with reasoning and critical-thinking content are effective, and research and theories related to reading development suggest that the emphasis on mastering basic skills before advancing to higher order ones are misguided. Furthermore, the importance of listening and speaking communication skills in any learning should not be overlooked, as they provide a way for low-literate students to bring their powerful intellectual skills into the learning process. One program which gives students space for exploring and expanding ideas while reading skills are developed is Easy Steps to Reading Independence (ESTRI). ESTRI features a cumulative skill-building approach and each lesson in the program focuses on recognition of consonant and vowel sounds as well as higher order skills such as inference, interpretation, and reasoning. (Contains 28 references.) (ECC)

CALL FOR EXCELLENCE IN URBAN EDUCATION:

THE COMMUNITY COLLEGE'S ANSWER

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Problems of administrators in community colleges and universities have never been more challenging. In 1993 they can seem overwhelming: tight funding, increasing competition for students and faculty, public concern about quality and accountability While curricular issues may appear to be internal to institutions, curriculum issues should also be responsive to the external environment.

College professors have often expressed alarm about the number of entering freshmen who need academic foundations courses, and now administrators are joining in. The most recent figure, according to the Chronicle of Higher Education (February 25 1993) was 30% or about one college freshman in three. Some of the freshmen cannot read; others don t know how to study Whatever the problems, they are sitting in college classes learning material they should have mastered in high school or elsewhere.

Professors are worried about the effect of large numbers of marginal students on college standards, administrators about the cost of remediation. Writing in the New York Times (May, 18, 1986), Shanker says that fewer students scored 600 or above on the SAT in 1993 than in 1972. In The Other Crisis in Education, Dr. Signel of Hobart and William Smith College says the students going to selective colleges have lost an average of 50 to 60 points on the verbal SAT. As a result, these students are less able to understand what they read than students a generation ago. They are less able to write or think or carry on a coherent argument.

Need for higher education. A college degree is an important economic and social resource for graduating-age students. Parcarella and Terenzini's most recent book, How College Affects Students, (1991) reviewed and analyzed almost three thousand studies concerning the impact of college on students. They found that college graduates earn between 11.3 to 46.5% more than those with only high school diplomas. Independent of an individual's background, a bachelor degree gives about a 34% point advantage in occupational status or privilege over and above graduating from high school. A college degree was also found to be an important economic resource for the community in two ways: the first was that the graduate was more likely to earn more and spend more, recycling money back into the community, and pay more taxes. The second was that the graduate will have general education skills that are needed to make them more flexible in terms of employability over high school graduates. College graduates are less likely to suffer long-term unemployment and under-employment. This reduces the need for the state to support them with welfare and unemployment benefits.

The periods of transition from one system to another are often difficult due to lack of familiarity with the requirements of the new services system or to conflicting eligibility criteria. For individuals with disabilities this may result in delays and interruption in service (Alfred & Peterson,1990). The student body has changed. In contrast with students of sixty years ago, today's college students come from far more diverse backgrounds , are often

vocationally, rather than academically oriented.

Challenges to the urban community colleges. Continuing to allow a disproportionate number of minority or disadvantaged students to pass through the education system without meeting higher standard of achievement means they are likely to end up in dead-end jobs or on welfare", says Iris Carl, President of the National Council of Teachers of Mathematics (NCTM). Unlike in past generations, few jobs with any prospects for advancement are expected to be available to poorly skilled students. Assurance is needed that students have the basic skills needed for success in college-level courses, such as math and science courses.

In their studies of 375 community colleges and universities, North Carolina State Board of Community Colleges (1990) found that retention is the result of improved programs in the classroom that contribute to the student success. He states unequivocally that student attrition can be reduced at most institutions by improving curriculum and instruction. Effective assistance is particularly important during the first year of college when students need "front line" academic support.. Focus should be on instructional processes that maintain student cooperation, attention and involvement.

Parnell (1985) proposes linking secondary and post-secondary curriculum as a way of adding structure and direction to educational programs that serve high school students. Students are capable of learning a great deal more than most schools ask of them. Generating a national consensus for higher expectations and greater student responsibility for learning, developing materials for curriculums that are more substantial and engaging and using approaches to teaching that differ from the traditional.

Overcoming the inertia of current practices with disadvantaged students is a tremendous challenge. Experts are arguing with increasing frequency that the classroom approach typically taken with minority students and low achievers characterized by lockstep-sequenced basic skills instruction, watered down remedial content, and few opportunities for students to learn actively or exercise critical thinking has only worsened their chances of ever mastering higher caliber academic contents. A critical transition period of students with handicapping conditions is the move to post-secondary school programs including higher education, adult education, employment, or vocational programs.

Classes should use case studies to illustrate typical management problems. Drawn from higher education, but also from non-profit sector, government, and industry, these cases help participants hone their skills of analysis, diagnosis , and implementation. Formative evaluation, the continuing review process that is employed as the curriculum is being developed should encourage faculty to share their pride and enthusiasm for teaching

Good jobs available. In states where workers lack high school credentials and essential work skills, where large number of high school students opt out of further education

and where employers are asking for better qualified technical workers, community colleges have the potential to revolutionize occupational preparation (Andrews & Licata,1989). Diversified high-tech manufacturing has a future. Technology-driven manufacturers will, in fact, play a crucial role in strengthening the nation's economy. Producers and distributors of high-tech hardware, for example, will help support a computer software industry and a myriad of other consulting services, such as desktop publishing. Symbol Technology and Frequency Electronics, two major companies, have plans to expand employment.

Health, financial , legal, and public service and information processing industries will rate as leading job producers as they were before the recession (Blong & Shultz, 1990) The health care field is one of the fastest growing industries in the nation New employment opportunities in this field provide encouragement for unemployed individuals especially for women who are now receiving public assistance

The National Science Board reports undergraduates science, mathematics and engineering education, consider women, Blacks, and Hispanics to be largely untapped pool with great potential for increasing the scientific workforce of the nation. Several studies of the condition of math and science education at all levels have generated extreme concern about a predicted shortfall of as many as 560,000 scientists and engineers over the next twenty years, and a shortage of engineering faculty that is already being felt (National Science Board, 1986; Task Force, 1988; Miller, 1990).

Private initiatives have made jobs available. Frustrated by stalled government and corporate efforts to revitalize poor areas of Los Angeles ravaged in last year's rioting, California's Black community has undertaken its own approach to economic development in investing in itself. Blacks are spending their money in Black-owned businesses. The theory is that this helps create jobs and increase tax base to improve schools and public works within Black neighborhoods.

Local groups are publishing directories of Black businesses for consumers and merchants and running networking channels for professionals. Economic development experts, including Bernard W. Kirsey, Co-Chairman and Chief Operations Officer of Rebuild LA, the public-private cooperative established in the wake of the riots to help revive the economy of the city's poor area, agree with this investment strategy and cite the success of ethnic groups like Koreans who patronize Korean establishments almost exclusively (Sim, 1993)..

Changes in the economy. The economic recession of the late 1970s and early 1980s caused a sizable increase in unemployment Since the 1982 recession, change has swept through the American workplace in four stages,as Robert Reich, U.S. Secretary of Labor, noted recently. The first step in the mid '80s and which continues today, was to reduce some of the benefit packages for the low-tier workers. The next step was to fire middle-level managers. The third step was to reduce benefit packages across the board for all employees. Now we're at

the fourth step, which is to do more business by contract, whether it is with contingent workers and part-time workers, or by contracting out. Low-wage, unskilled manufacturing jobs, such as assemblers, have been the real victims of the overhaul in manufacturing. (Contingent workforce grows: more part-timers, 1993).

Catterall (1985) describes the relentless inescapable cycle of poverty, where the actual economic, educational and political deprivations are exacerbated by the resultant psychological poverty. For the chronically poor, who are increasing, not only in numbers but in the depth of their poverty, life is continually lived at risk of homelessness: relying on inadequate income, unable to cope with unexpected expense or crisis, never having the security of enough food, a decent job, doubled or tripled up in a housing arrangement with friends or relatives (Housing and homelessness: a teaching guide 1989) This variety of people has given rise to the idea of the "new homeless", people who have suffered serious economic problems in loss of job or other income, loss of housing and the inability to locate new housing. Younger people, those in their 30s, more women and children, and a disproportionate number of minorities are among those in need. Better employment cannot increase until service-producing industries begin to hire more workers and goods-producing industries begin to lose fewer workers.

The role of science and technology in American society is undergoing dramatic change In an increasingly technology-oriented society, a basic understanding of science and mathematics is essential to maintaining a population prepared to meet the need of or a technically competent work force or to exercise the responsibilities of citizenship in a modern democracy (Shanker,1993). Attention to quality control and increased productivity will be hallmarks of service-producing firms.

As jobs become scarcer, economists say, poorer people, mostly Black and Hispanic young people, are being pushed off the bottom rung of the economic ladder by working class whites who themselves, are being pushed down the same ladder. The report from Study of Academic Instruction (SAI) notes that such practices may tend to underestimate what students are capable of, postpone more challenging and interesting work, perhaps indefinitely, and fail to provide a context for meaningfully employing the skills they are taught (Scales & Burley, 1988).

The studies focus on both the text content and the student's understanding of the goal of the strategies they are using. This approach insures that the students are aware of why they can be required to use the strategies and how critical reading and study work. The teacher provides feedback that is tailored to the student's existing comprehension levels, encouraging them to progress gradually toward full competence. The responsibility for the comprehension activities of the goals is transferred to the student as to what is possible. As students master one level of involvement, the teacher increases is or her demands so that students are

gradually called upon to function at a more challenging level, finally adopting the leader role fully and independently (Brown & Canpioni,1986).

Adults with low literacy skills viewed learning as separate from literacy Practical application, understanding, and challenge motivates low-literate adults to learn. Most deterrents relate to participation in literacy education rather than learning. For many people considering training in a health care career, the idea of learning medical terminology is frightening. A successful training program must help learners overcome their fear and master complicated medical vocabulary (Shaeffer & Carnan, 1993). What is being proposed is not that low achieving students don't need to master basic skills, but that the means toward teaching these skills shouldn't be allowed to preclude other goals such as reasoning or critical thinking Transformal learning assumes the workplace as a place satisfying for personal and professional growth.

The need for functional literacy. Compounding the problem of employment is the fact that higher level literacy skills are required in order to pursue, and succeed in, the training required to stay up-to-date in the face of changing technological requirements (New project addresses literacy and numeracy in the workplace, 1992-93). Jonathan Kozol (1990), who writes on social justice issues, estimates that some 60 million adult Americans cannot function in a literate society. They read at levels, he says, that "deny them access to some very basic forms of education And he says that eight thousand to a million dropouts are added to that number each year.

Reading disability permeates virtually every element of the deeply ingrained sense of personal failure, of individual worthlessness. The literature research specifically links dropping out of school to reading disabilities and related problems (Riley, 1986). Changes in technology have presented the construction industry with a dilemma. To read the plans, specifications, manuals and contracts that are part of the job, craft workers must possess at least the equivalent of 10th to 13th grade reading level. Yet national data suggest that the literacy levels of some workers in the crafts are considerably below those now needed for the job. Furthermore, a recent survey of the 1993 local member unions in Ohio indicate that 30% of workers in each union were below the level of functional literacy of any particular craft.

Problem of school dropouts. The majority of dropouts left school because they were failing. They could see little immediate payoff for staying in school. Under-educated, they stand alone. Illiteracy is closely linked with poverty and racial and ethnic minorities. The recent movement in high schools to adopt stricter graduation requirements has substantially increased the dropout rate because schools have failed to provide help for students who cannot compete successfully under the new rules. American education is stuck today on well-intentioned deeply traditional, but flawed ideas about learning and teaching. Critics of educational reform policy point out that its focus has been too narrow to achieve educational

excellence. Educators consider suspect the value of reforms which add more to the same academic requirements of curriculum without improving teaching methods. While more students appear to be gaining the basic skills in the subject areas, few are able to demonstrate higher order applications of these skills.. The 1990 Census data indicate that nearly 32 million people in the U S. speak languages other than English in their homes. This figure reflects an increase of 1.9 million, approximately 38% since 1983. New Jersey has about 47,000 limited English proficient student enrollment, as reported by the SEAs to the Education Department.(The Condition of Bilingual Education in the Nation. 1992)

Established in March 1992, the National Reading Research Center (National Reading Research Center (NRRC)) is operated cooperatively by the University of Georgia and the University of Maryland. Six affiliated scholar projects are located at the University of Washington-Seattle: San Diego State University, the University of Texas-Austin, the University of Virginia. Rutgers University, and Clark, Atlantic University. Affiliate sites were selected to provide geographic and demographic variety and to balance the Centers research focus National Reading Research Center (NRRC) plans to establish a seventh affiliate scholar project in the southwest to increase its focus on native American students' issues. Functional literacy encompasses the ability to draw inferences, to separate facts from opinions , to draw conclusions. to predict outcomes and to interpret words and phrases in context.

Within this context, the National Reading Research Center (NRRC) researchers have identified four barriers to literacy: a crisis in acquisition, defined by National Reading Research Center (NRRC) as "persistent disparity in the reading achievement of mainstream and non-mainstream students; (2) students' lack of reading and writing skills and the desire to develop them. The NRCC states "clearly we are failing to meet the literacy needs of today's socially and culturally diverse student population (Shanker, 1993. To assist in altering this situation, the NRCC plans to conduct research that explores sociocultural issues areas in literacy achievement and how best to address them in classrooms, homes and communities across the country (Newsletter of the National Congress for Bilingual Education, 1993)

Piaget's learning theory. Piaget's (1976) theory of schemata , which theory can be applied to the development of reading skills, consists of a framework for tying together the information about any given concept or event with specifications about the types of interrelationships and restrictions upon the way things fit together. Schemata data functions represent concepts stored in memory. They exist as generalized concepts underlying objects, situations, events sequences of events, and sequence of actions. Essential characteristics of schemata combine to make them powerful representations in knowledge and memory. Schemata can impend one on the other. They represent generic concepts which, taken all together, vary in their levels of and representative knowledge rather than in definitions.

From schema theory, comprehension is understood as an active and constructive

process in which the reader is constantly reviewing what is known, linking new information to prior knowledge, forming and deepening the hypothesis about the meaning of what is read or the problem to be solved, assessing appropriate study strategies and revising concepts and ideas as new information is acquired (Eagan, 1980).

Knowledge, the active transformation of experiences, arises out of the interaction between stimuli and process. Concepts organize information which is not dependent upon the immediate conceptual array and are at least potentially nameable. Without these attributes concepts do not yet exist. Comprehension involves ability to grasp such concepts as main idea, facts, sentence, inference, and critical thinking. The contribution of the process sorter brings a variety of capacities and strategies to the task of making sense out of the stimuli objects, and events of the world which impact on consciousness. This process is repeated for each subordinate skill until basic knowledge and skills are identified. The result is a leaning hierarchy that indicates the skills that should he included in the instruction and the sequence.

Development of functional literacy skills. Research on reading as a cognitive task has focused on reading as an active process with three questions of concern How do learners learn to identify the printed word? How do they discriminate it from each other word? How do they recognize it upon seeing it again in a different context.

Reading of words is accomplished by two separate but interrelated processes sight word recognition and decoding. Sight word recognition includes a process of matching the visual perception of the word with a visual template stored in long term memory during original learning. Skilled reading depends upon perceptual, linguistic, and cognitive processes. In order to understand text, readers must recognize words and analyze syntax Also, they must access and organize the appropriate conceptual knowledge. This depends on a variety of analytic skills, knowledge and processing of information. Reading difficulties reflect inadequate development of one or more of these processes.

Reading requires attention to the activation added to a structure which facilitates processing information to that structure and attitude. A judgment of a person on an object or concept along an evaluative dimension enters the process of developing cognition.

Two systems interact in language development: grapheme-phoneme and synthetic semantic. These cannot usually be separated for instruction without creating non-linguistic abstractions and nonsense. Decoding is a process by which words not automatically recognized are translated into inner speech, providing the equivalent of hearing the word. If the reader cannot recognize a word as a whole word then they must organize a set of subabilities at the next lowest level, such as phoneme-grapheme correspondences and blending abilities to sound out and then synthesize the word.

The process of decoding includes analysis of the word into parts, retention of sounds in correct sequence, and blending of the sounds to represent the word in inner speech. The

person must be able to detect perceptual differences , perceive likenesses and differences. remember word forms. and associate symbols with pictures and objects. The basic deficiency is one of inability to relate symbols. to associate the proper phoneme with proper base. the inability to match a visual sequence with an auditory sequence.

Phonics carefully taught has been declared to facilitate reading, making students independent readers so much sooner. Phonics is held to be a distinct aid because it promotes simultaneous analysis of the word by hearing it. recognizing it auditorially and by contextual analysis Phonics instruction has a common goal to teach how to figure out the pronunciation of unfamiliar written words by using the relationship that exists between phonemes (the sound the letter makes) and graphemes (the letter itself). Many reading disabled persons have great difficulty in acquiring phonic skills. Reading disabled persons who experience this problem have a tendency to guess wildly at words. They pay attention to specific letters and guess wildly at the rest, mistaking for example 'horse' for 'house'

In using phonics and finding beginning, meddle. and final sounds in a word. reading disabled adults have problems in putting the sounds together to make the word. Some are handicapped because they are not able to discriminate between the various semantic elements of words, do not hear, or do not speak the word correctly, and thus confuse words. They do not learn to pronounce distinctions that they have not heard spoken. Since phonics does not offer help with meanings , it is productive only with words already known in their spoken form

Stanovich et al (1984) contend that simply to notice relevant features of a pattern is not sufficient to identify the word uniquely. Many students who can decode have trouble with the higher level of reading comprehension (Stanovich, Cunningham, & Feeman.1984). The combination-information of features is the second stage of perceptual order of perceptual learning. It represents learning after acquisition of a new code. Implicit is the use of the term "combination" in the ordered relations of the items which arise as a merging set of features. Poor memory can prevent mastering of decoding skills to an automatic level.

This situation could lead to hysteresis, the inability of the short term memory coding mechanism to keep up with the demands placed on it by too much data being presented at one time. The memory load, that is frustrated by having to learn hundreds of new and ever less discriminable words, quickly becomes excessive. Graham (1982) explains that as the differences between and configurations of words become ever so fine, with letters curving to the left and right and upward and downward, the limited English proficient reader, especially, becomes confused and loses confidence. Disabled readers are probably disabled readers because they were introduced to similar-looking words at an ever-increasing rate and they find it harder and harder to make the fine discriminations required to identify the words. The problems of visual discrimination do, in fact, increase proportionately as the rate of the introduction of new words increases.

There are two classes of difficulty at the syntactic level: the completeness with which readers can link the meaning of the text onto their own conceptual structure and the readers' ability to usefully organize the meaning of the passage. Other problems are: lack of appreciation of pragmatic determinations of discourse, differences between the dialects of the students' reading materials and the oral language environment, difficulties in coordinating references, difficulties between metaphor and figurative language, and difficulties in appropriately altering their point of view. Readers' ability to organize concepts in a text is crucial to comprehension. In order to comprehend the passage, the reader must be sensitive to the relative importance of various concepts introduced in the text.

Changes in the individual's cognitive structure, such as developing reading ability and mastery, materialize as a function of specific, identifiable events facilitated through rule development. Rule development, a procedure applied to a variable governs the behavior which activates the memory.

In college courses, the reading material does not necessarily use the students' own language and the content often treats of subjects beyond their immediate experience. The curricula for bilingual students is built upon a platform of knowledge of named concepts in the English language which the reading disabled bilingual student may not possess, or possesses in a very limited manner. Skilled reading depends upon perceptual linguistic and cognitive processes in the English language which are often absent from the repertoire of the reading disabled bilingual student. A reader lacking fluency will be stuck at a level of attending to the mechanics of reading and further comprehension training is unlikely to have any value.

Meaning is constructed during listening and reading, the reader develops meaning by drawing on prior learning and experience while interacting with the text. Attention must be shifted in instruction away from words and towards comprehension of meaning. Meaning is available if the word is in the reader's hearing and speaking vocabulary. Reading cannot occur unless the student can identify and recognize the printed symbol, but too much emphasis in remedial instruction has been placed on word identification and not enough on comprehension(Chall, 1983).

The traditional methods of teaching beginning reading start with primary level grades and take several years to lay a workable foundation for higher level reading skills. This process has been found to be too cumbersome for the limited English proficient college student who must master course content and has not interiorized the communication code necessary to do so. Like young readers, limited reading proficient students are still developing reading skills; as adults, however, they have a wealth of knowledge and experiences to bring to bear in reading situations. The knowledge base instruction in basic reading skills must be seen as part of the larger task of solving authentic problems. Learning tasks organized around the

notion that students must master basic skills before advancing to higher order ones are misguided. Disadvantaged students in remedial reading programs are too often programmed for the discrete skills without the benefit of a challenging or engaging context

Imperative role of listening and speaking communication skills. Of all basic skills, speaking and listening are the most fundamental to learning both in school and throughout life, according to experts in the field of oral communication. Reading requires syntactic awareness that is generally not required for listening. Teaching Advanced Skills to Educationally Disadvantaged Students, (1989) a report from the Study of Academic Instruction summarizes some of the powerful intellectual skills even the most educationally disadvantaged students bring to school: the experiences and receptive skills of their native language, basic facts about quantity and insights about social expectations

Dr. Rubin, Visiting Professor of Communication Arts of the University of Cincinnati, points out that experts in the field advocate integrating instruction in speaking and listening skills across the curriculum. These include free skill areas of speaking, listening, creative drama, nonverbal communication, mass media awareness. Science has demonstrated the tremendous language strength and language learning strength universally present among people of all backgrounds, including those whose home dialect is different from the teacher's.

Information gathered from explorations of comprehension skills and strengths of limited reading proficient student could be used to develop instructional intervention Students react initially within the context of their own linguistic environment rather than within a language environment that is unfamiliar to them. Their use of oral language grows and is used to develop language acquisition, production, recognition, and prediction abilities They can understand and speak on things of interest to them, although they may not have the ability to write on these same topics because they lack the sight words needed to make the page meaningful or they lack the decoding skills to decode the unknown word. Students should be able to identify and apply techniques for effective listening and to construct and deliver a persuasive speech. Educators need to teach standard English to empower students within the mainstream culture.

Teachers can help students develop speaking and listening skills by teaching them to summarize orally, talk aloud when solving a problem and work collaboratively. Teachers need to call attention to the process of expressing oneself clearly and listening critically. Taken as a whole, studies of communication skills acquisition suggest that adults need to understand how concepts and procedures can function as tools for solving relevant problems. This type of learning should result in knowledge operations that are organized with respect to the triggering condition of specifying their applicability (Simon, 1980). Bransford & Stern (1984) emphasize five components to learning: identify, define, explore, account for, locate, and learn. These form what they call the IDEAL approach to problem solving.

Perhaps the most powerful argument in favor of instruction in speaking and listening skills, experts say, is their centrality to learning and thinking. Oral communication, listening and thinking are integrally related. Reading, oral communication, listening and thinking are more integrally related than are reading and writing. Students would, for example, much rather ask a question and engage in oral communication, listening and thinking about the subject in question than have to be frustrated by the lexical form of the written question, even if it is expressed in the idiom of the student. Students learn by creating informational quizzes visual/listening models, brainstorming, designing peer problem solving activities or predicting text questions

The learning theory that is compatible with a great deal of this work is that of Vygotsky who believed that learning involves the internalization of activities originally witnessed and practiced in cooperative social settings, that is, people learn by participating in group activities in which they are exposed to a variety of models expressed by others who differ in expertise (van Daalen-Kapteijns & Elshort-Mohr, 1981). It is the expert's job to provide assistance for the novice's inchoate learning processes until such assistance is no longer needed. The principles of naturally occurring instructional methods, repeatedly observed as being used by master crafts people with their apprentices (Greenfield, 1984) can be adapted to successful course instruction.

Adults learn naturally to communicate orally, but they don't necessarily learn to do so effectively. A recent study by researchers Venderplank & Daly (1988), a nationally representative sample of more than two hundred people, aged 22-25, were asked to perform a number of oral communication tasks. Based on the responses, Venderplank & Daly concluded that one-fourth of the sample could not adequately communicate orally

Phil Bucklund, Professor of Speech Communication at Central Washington University, cites several reasons why speaking and listening skills have traditionally been neglected. The teaching of speaking and listening skills has been traditionally eclipsed by reading and writing instruction. Teachers assume that students already have speaking and listening skills. Curriculum developers have not given speaking and listening proficiency sufficient attention.

Easy steps to reading independence (ESTRI). The ESTRI program (Biggins & Sainz, 1990) gives space for the students' need for exploring and expanding ideas while the groundwork for developing a systematic decoding skill is being laid. Providing students with a unique and valuable language experience the ESTRI program integrates reading with the two other linguistic skills of listening and speaking. The ESTRI program curriculum emphasizes the thinking through of several flexible strategies of enhancing comprehension and comprehension mastery, thus overcoming mind-wandering in reading and breaking the word-by-word reading habit. Students learn to trust each other to verbalize what they do

understand and to clarify what they don't understand.

The cumulative learning style of ESTRI helps the college student to overcome deficits such as poor visual discrimination of words being learned, poor memory for sounds and interference when several things are being integrated at one time. This Program guides the student in the difficult independent work of getting started with words, changing stems, organizing, maintaining attention, deconcentration in groups and individually,. inconsistent achievement, such as knowing things on one day and not on others, overactive impulses, hyperactivity interfering with learning, impulsive rushing into tasks and activities without forethought.

The program proceeds along the lines which have been referred to by Samuels (1958) as cognitive instruction Cognitive instruction refers to any effort on the part of the teacher or the instructional material to help students process materials and information in meaningful ways, to become independent learners and to help the student construct meaning from reading, to solve problems, to develop effective reading/thinking/learning strategies to select appropriate strategies, and to take responsibility for their own learning as well as to transfer skills and concepts to new situations, critical and cognitive thinking, memory and metacognition.

Each lesson has two focus points to it. One focus is the recognition of consonants and vowels in syllables, focusing on the distinctive sound-symbol relationship of one consonant at a time. This focus becomes spiral and cumulative as the other consonants and vowels are introduced. Whole words are not taught at first. Instead, students are taught the individual consonant (e.g. 'c') in its sound-symbol relationship. Students find more words in materials of their own choosing or textbooks, containing this sound-symbol relationship, no matter what place it occupies in the word. A simplified decoding skill based on recognition of syllables in words is taught. No 'exceptions to the rule' are presented.

The other focus point is the simultaneous development of higher order skills such as literal interpretation, creative comprehension, inference, reasoning and thinking, through the listening/speaking oral communication code. As an example, a sample page taken from the ESTRI program shows, in exercise 1, a picture of a jeep. This picture, as suggested in the Teacher Manual, has been used to prompt an inter-cultural discussion and activity. All cultures have their own methods of traveling. The jeep is a car very popular in the United States. A little questioning and discussion brought students to talk about transportation native to their own culture.

Biggins & Sainz (1990) contend that oral/aural language development and cognitive skill development in course content subject areas should be strengthened while the decoding process is being put into place and that students should be coached to (1) comprehend what is said and follow directions, (2) remember verbal materials, such as directions and facts, (3)

distinguish between similar sounds in words heard, (4) remember names and sounds of letters, blending, word recognition. (5) express themselves using correct grammar. (6) develop appropriate vocabulary so as to avoid using the word 'thing' because they do not know the correct name for an object, (7) develop knowledge and concepts, form judgments, reason, and plan.

Each time the student learns a new group of words when the syllablizing skills is being put into place through the Program, the learned words need to be integrated with the previously developed word store and used in reading phrases and sentences with the other words. Soon fluency becomes an established skill and transfers to other reading. Once fluency with vocabulary, word recognition and attention are achieved, it is now much easier to transfer to other readings Comprehension is much higher than before the development of fluency.

Broad questions that guide the activity are from categories of questions such as convergent questions which require analysis and integration of given or remembered facts The questions require a judgment, rating, or choice and involve matters of judgment rather than mastery of fact. The questions can also be divergent, requiring independent generation of ideas, of taking a new perspective or direction through use of such processes such as elaboration,divergent association and implication. The questions can be narrow, to which the specific nature of the response can be predicted, as 'yes' or 'no,' without clarification; statements involving pairing, separating, answering or developing ideas. Questions can be ones elicited by the student.

It is noteworthy that ESTRI's processes appear to meet the needs of students with a wide range of previous levels of academic achievement and ethnicity within the college courses, thus reducing the necessity for the institution to provide additional and separate tutorial and academic support programs. The history of success with ESTRI in upper division courses is important because some institutions are now implementing the ESTRI program to retain first-generation and low income limited English proficient students..

Sources of funding to support higher education and training at the community college level. In 1993, Congress passed a huge tax bill. In his tax package President Clinton proposed that Section 127 of the Internal Revenue Code be made permanent. Section 127 allows individuals to receive up to $5,250. annually of tax-free employer-provided education assistance. Much of the coursework taken by employees use Section 127 benefits and take place at community colleges.

The National Science Foundation (NSF) provides monies for research for education in the sciences and engineering. The NSF package includes developing new methods and materials for teaching science and mathematics and adapting proven ones. The Foundation encourages proposals which serve to build or strengthen alliances among eligible

organizations to develop program models that fill "gaps" in current programmatic efforts and which facilitate "bridging" from one educational level to the next.

The Office of Educational Research Improvement (OERI) of the U.S. Department of Education funds twenty-five university-based centers to conduct educational research and development projects. These Centers are designed to help the nation meet the National Education Goals by the year 2000 through coordination with other universities and elementary and secondary schools and by making research findings available to educators (Newsletter of the National Congress for Bilingual Education, 1993). President Clinton appears to be committed to education at all levels. At the recent economic conference held in Little Rock, Arkansas, he put lifelong learning at the top of his list of goals (Forlizzi, 1993).

Strategies for maintaining excellence in urban higher education. Cross-curricular teaching strategies that integrate functional literacy skills with program content and multicultural goals in all subjects should be provided for the limited English proficient student population. This non-traditional population can gain literacy skills simultaneously with program coursework. In this way, students will be prepared for a world that will demand flexibility, creativity, and the ability to adapt positively to change. Without well-rounded skills, the student will be inept at dealing with the changes and challenges they are likely to encounter in the Workforce.

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