The retention factor of literacy must be the target variable in any projection of literacy programs of the future. Further, the success of literacy programs of the future is contingent upon the resolution of three major problem areas:

1. The concept of literacy
2. The programs of literacy
3. The politics of literacy

A concept of literacy is needed for the stabilization of what precisely constitutes literacy. A concept provides a more enduring description, definitions do not. The central issue is: When is an individual permanently literate, now and forever? The adult literacy efforts of the past have been piece-meal, haphazard, and spasmodic at best. This is not to belittle the remarkable attempts, but only to admit the obvious. The fact that the level of basic literacy is attainable for nearly 100% of any population in any culture in any sovereign country does not speak well for the governing groups which are responsible for education. Governmental commitment, professional involvement, and "turfism" will have to change to enhance the future of adult literacy programs. (One figure is included; 18 references are attached.)
We are in a literacy explosion. One can hardly pick up any magazine, newspaper, or professional journal without some reference or allusion to literacy. Perhaps it is presently due to the fact that UNESCO has designated 1990 as the International Literacy Year, the first year in a ten year effort to eliminate illiteracy through the world. Although the United States is not presently a part of UNESCO, the effect likely overflows into current media efforts.

Several professional journals, such as the current issue of Daedalus, the organ of the American Academy of Arts and Sciences, have devoted their whole issue on the subject of literacy. Articles on literacy are frequent entries in The Chronicle of Higher Education. The American Journal of Education, among others, have had themed issues on the topic. IRA just released two works on literacy and is highly advertising them: Cases in Literacy and Toward Defining Literacy. The print and electronic media carry frequent references to the subject. Literacy is a "hot" topic.

With all this exposure and line coverage, one could draw the conclusion that we are in a literacy crisis. I doubt if it is
that severe. The situation is that the term, literacy, is being used in increasingly different contexts with semantic shadings of meaning with each additional modifier. Literacy, which denotes the simple ability to read and write, has now been extended to many other areas of society. So today frequent references are made to:

- visual literacy
- scientific literacy
- cultural literacy
- computer literacy
- statistical literacy
- social literacy
- numerical literacy
- geographic literacy
- informational literacy
- political literacy
- historical literacy.

With each qualifier, the concept of literacy is further pushed into other social domains. It is now faddish to speak and write about literacy. Kintgen (1988) has provided a plausible explanation for this literacy craze. He maintains that the term is being confused with and used to replace the more precise word choices: "knowledge and competence". These terms sound "much catchier than knowledge or competence: who would be seriously interested in 'computer knowledgeable' or 'visual competence'?"

As the process of extension of literacy grows, the confusion of the term multiplies and if it continues, the connotative uses of the term may totally replace the original. Yet it is the denotative aspect of literacy that is the root of the major problem area today.

History has a way of adding new nuances to a given terminology. There appear to be four distinct historical stages
in the use of the term literacy (Kintgen, 1988). With the passage of time, societies expectations of literacy changes. At first literacy was indicated by the ability to write one's own name, the signature stage. This was followed by the recitation stage, the ability to read from a text or recite portions of it from memory, especially if it were a religious text. The understanding of what was read was not a condition of this second stage, memory was. The third historical stage is the comprehension stage, the competency to read strange material and be able to provide a literal understanding of the material. For the most part, we are entering in the fourth stage, although remnants of the third stage are still quite prevalent. The emerging fourth stage is the analytical stage, the ability to reason, analyze, and infer from the material read. Each transformation between the historical stages reflects a different set of expectations involving different aspects of cognition.

As expectations rise, so does the demand for greater competence on the part of the members of that society. As the demand rises, so does the gap between competence and the desired level of performance, creating a literacy crisis. Therefore, until a given society ceases changing its levels of aspiration for the uses of literacy, a problem is likely to always exist.

Whatever the variations of meaning implied, it is the retention of literacy around which the issue revolves. This retention factor must be the target variable in any projection of literacy programs of the future. Further, the success of literacy programs of the future is contingent upon the resolution of three major problem areas: the concept of literacy, the programs of
literacy, and the politics of literacy. However, it is the concept of literacy that really must be resolved before the other two areas can have a significant impact.

The Concept of Literacy.

A concept of literacy is needed for the stabilization of what precisely constitutes literacy. A concept provides a more enduring description, definitions do not. Each definition comes from a different perspective on the issue - some broad, some narrow. Wagner (1986) suggests these differing perspectives are due to what the definers focus on. "Literacy specialists have focused primarily on the context of skill use, while reading specialists have focused on skills and their acquisition" (p. 321).

Kaleidoscopic Views. Definitions provide a kaleidoscopic view of literacy, including traditional, statistical, functional, and contextual referents. Definitions of literacy cannot be dismissed as a purely academic pursuit. Our definitions and understanding of this concept have a bearing on a person's self-concept, self-esteem, self-efficacy, opportunities for advancement, labor force participation, and civic awareness. The traditional definition of literacy only indicates that an individual can read and write, without designation of the power or level of those behaviors. The statistical approach focuses on the level of schooling - an easy factor to quantify, but hardly indicative of the level of learning achieved. This often is provided in the form of the number of years a person attended in formal education. The length of the year in terms of days
attended or instructional hours provided is never documented. A year in one setting might be 150 school days a year, in another over 200 school days. Neither is length of the school day provided, nor is the percentage of the total time for instruction in reading, writing, and simple numeracy. The amount of schooling simply indicates the opportunity to learn, but not the degree and quality of learning.

Functional and contextual definitions have dominated the literacy field. The definition by Gray (1956) for UNESCO probably has contributed the most to characterize literacy as a conditional behavior -- the condition being due to the surrounding environment and lifetime activities. Gray's definition is: "A person is functionally literate when he has acquired the knowledge and skills in reading and writing which enable him to engage effectively in all those activities in which literacy is normally assumed in his culture or group" (p. 19). This definition and those similar are attractive and seductive. They offer channels of escape for the political and programmatic dimensions of the literacy framework. Maybe that is the reason for these definitions encompassing acceptance. It makes being literate a relative thing with the designation of who is literate and who is not within the province of those bureaucracies who wish to do the classifying. Such definitions offer no stability for the concept.

A Monolithic Perspective. However, none of the definitions deal with what I think is the central issue of literacy. The crucial issue is one of permanency. What does an individual have to do to be forever literate? The answer to that question focuses on that level, point, or band of performance which guarantees
lasting literate behavior. To measure literacy, we must agree on
where to draw the line between literacy and the lack of it. No
real progress will likely be made in the literacy field without an
anchoring position from which to evaluate where we are. If we do
not know where we are, we can hardly know where we are going or
ought to be going. Relativism will not do. It has its place, but
after the baseline has been established. It is the baseline
that determines permanency. This permanent literacy baseline
offers a duo-directional perspective. One direction is that which
one has to work toward to be literate, and the other direction is
that from which one can make personal advancement.

The central issue is: When is an individual permanently
literate, now and forever. This permanency mark is what we should
work towards, and from which relativism can be projected. The
search is for that "point of no-return" - a position from which
the extinction of the behavior, even through disuse, will not
happen. Even if formal learning is terminated, literacy will
remain. Even if the literate skills are not used with regularity,
literacy will still remain. Of course there will be regression in
performance, but the relapse will never return to zero level or
even near zero level. Literacy remains. Permanent literacy is
that point where the behavior is no longer subject to extinction -
some retention will always remain. "The crucial factor is not
only 'how to teach literacy', but also 'how to retain levels of
literacy' already achieved so that development, reading and
cognition, may become a continuing process. (Roy & Kapoor, 1975,
p. 2; Wagner, 1987).
Extinction is only one construct which could lead the way to the designation of a point of permanent literacy. The other is empowerment. This is the strength to generate on one's own, if the motivation for self-development is there, now or some time in the future. This enabling point explains how our ancestors with a limited number of years of schooling became so highly literate. They had the consolidated, permanent base from which to launch their individual efforts, and they were motivated to do so. Permanent literacy is that point not subject to extinction but also that place from which further self-development can continue, with or without instructional support. Probably, further development will be more rapid with instructional support, but it can continue more slowly and erratically without it.

It is my hypothesis that the tangential point between the opposing forces of two constructs, extinction and empowerment, is the point of permanent literacy. One can visualize this as the tangent between two opposing arcs. (See Figure 1). The lower arc is the area of extinction and the upper arc is the enabling sphere for generation or creation. The point of tangency is where permanent literacy occurs.

![Diagram](image_url)

**FIGURE 1. Permanent Literacy:**
At the point of tangency between the arcs of extinction and generative power
Where is this point of tangency? In what terms is it measured? It is my observation that this point is reached when an individual can read at an instructional reading level in continuous prose with an estimated readability level of approximately low-fifth grade level. This would translate into a score on most standardized reading tests of approximately 6.0. The key element here, however, is not the grade level (of schooling, test score, etc.) but the difficulty of the task. While all reading people know that readability formulas have their limitations and are hardly infallible, they do provide proximate estimates of prose difficulty.

Being able to read a low-fifth grade task at sight with no more than about seven percent decoding error and a comprehension score of 60 percent or higher with a reading rate of at least 90-100 wpm will likely indicate that permanent literacy will have been reached. From this point, with or without instructional support, the person can continue learning and growing in reading power depending upon their context and desire.

**Kaleidoscopic Expansion.** Once a permanent level of literacy has occurred, the attribute of functionality and relativism becomes important. Then the kaleidoscopic image has relevance. If the context or function demands more reading power than the minimum, such a job as cook in the military service (which requires a reading level of about 9.0 (Sticht, 1975)). The individual has, if they wish to be able to perform that job satisfactorily, the basic tools to build upon to meet that demand. This is assuming they have the desire to do so and time and
(perhaps) support is given them to work within the limits of their abilities to meet that demand. Different tasks in people's environment will demand differing levels of performance. Those levels, within the limits of ability, can be reach by all individuals if the basic level of literacy is achieved as an anchoring point (and point of security) from which to embark their efforts to meet the divergency of the environment.

The service and technological world we are entering into demands reading, writing (or typing), and simple arithmetic even for the entry level jobs. Recently, I was in a automotive garage, a fast food restaurant, and a discount merchandising center with warehouse distribution. All of the positions required literacy. In the garage, the service representative registered my car and complaint into a computer. He had to read, and write (type) the information into the system. The mechanic had into input work time, parts, cost, etc. to a computer upon the job completion. In the fast food restaurant, a young woman took my order which was printed out on tickets for food collection and order checking. In the merchandising center, again a young woman placed my order into the computer system by name and number. The young man in the warehouse area received the order, read it, checked off items, and sent it down a conveyer belt for delivery. A young man there, read the order, check off the items, and handed my purchase to me. All of these entry level positions required simple basic literacy and perhaps more.

These images of literacy are consistent with my earlier concept of levels of literacy (Powell, 1977). There appear to be four levels of literacy: sub-literacy, pre-literacy, basic
literacy, and career or workforce literacy. These levels (or stages) have interfac ing junctures (Powell, 1973) at about the primer, mid-second grade readability level, and finally, at approximately low-fifth grade text difficulty. The permanence of the first two levels is dependent upon the obtainment of the third level: basic or permanent literacy. The fourth level of literacy is contingent upon the individual's generative powers within their social and cultural context, aspiration level, and personal motivation.

If the observation by Sticht (1987) is correct that technology itself will make higher literacy for adults superfluous and relatively low levels of literacy will suffice, then the establishment of a permanent concept of literacy is crucial. All other life activities and entry level positions are dependent upon this threshold of permanency. The individuals can increase their own literacy skill to obtain promotions, with or without company support, and others can use their regressed status of literacy for simple daily activities, such as shopping or reading to their young children. The choice becomes the individual's. Society has met its obligation of providing a sustaining literacy level; now it is up to the individual to meet her/his obligation to society. The individual must use it and developed it, or the person must be willing to adapt and to cope using their relapsed skills as need for daily living. However, this choice can only happen if the level of permanent basic literacy occurs at least once in a person's life. Fishman's (1988) observation in conjunction with her study of literacy among the Amish has wider application than to just that sub-cultural group.
If they want to go to college, join the armed services, or enter certain professions, they must be able to read and write as people in those contexts do. (Italics mine.) If they do not want access to those domains, however, they do not need those kinds of literacies. Any kind of literacy empowers and identifies; our students and their families must decide for themselves what kinds of power they want and with whom they want to identify. They must recognize and accept the fact that they have choices and options and, at the same time, so must we.

The Programs of Literacy.

The adult literacy efforts of the past have been piecemeal, hap-hazard, and spasmodic at best. With a number of illiterates continuing to grow, one cannot say with confidence the programs of the past have enjoyed any remarkable success. This is not to belittle the remarkable attempts. It is only to admit the obvious.

Adult basic literacy instruction is provided in many different settings. Instructional programs may be found in informal settings, e.g., church or community classes or individual tutoring by private citizens, or they may be housed in formal or academic setting, e.g., programs administered by state and local literacy organizations. Among the programs offered in formal settings are those run by private industries, such as AT&T and the automotive industry, volunteer organizations, adult basic education (ABE) programs funded by the federal and state governments, training programs in nonschool settings, and programs in continuing education offered through colleges and universities.
Programs offered through private organizations are among the most well known programs. Television segments and advertisements, such as the Annenberg funded Project PLUS, appear frequently to remind us that adult illiteracy exists and that instruction is available. Two special group of programs make up the bulk of the private volunteer organizations. The most widely known are Laubach Literacy Action (LLA) and Literacy Volunteers of America (LVA). They depend primarily upon volunteers to provide instruction who are given limited training classes or specially made video tapes. In spite of these efforts, most literacy personnel are poorly supported and inadequately trained.

The Laubach Literacy program has a long history of literacy campaigns throughout the world under the name Laubach Literacy International. The organization was founded in 1955 by Frank C. Laubach. The Laubach method is structured around a modified phonics approach to reading. The Literacy Volunteers of America was founded in 1962 by Ruth Colvin in New York. The LVA uses a student centered, whole word approach with some language experience activities encouraged. The critical difference in approach between LVA and Laubach is LVT's support of teaching through context and the language experience approach. In more formal settings, adult basic education programs are federally funded (with a ten percent state contribution). They operate primarily in within the framework of the public schools and community colleges. The ABE programs are a result of the Economic Opportunity Act of 1964. These programs focus on sixteen year olds and over to improve reading, writing, and arithmetic skills.
The instructional approach is a "mixed bag" often using the LLA and LVA materials, singly or sometimes in combination. These three primary programs use differing instructional approaches. The LLA uses a phonics approach, LVA uses a whole word approach with some language-experience emphasis, and ABE programs uses simply what is available, with availability being the one of the principal reasons for material selection (Gadsden, 1988). There is reason to believe that both the LLA and the LVA through their basic materials do not advance the student to a high enough level to produce permanent literacy. One has to go beyond their basic material for individual empowerment to be locked in.

Until recently, the study of adult literacy has been isolated from the mainstream of research in fields such as reading, adult education, and cognitive development. Because of the adult focus, it has been studied under general education or appended to research in literacy development of children in schools. Within the past few years, the body of research in the field has begun to reflect a meeting of disciplines such as reading and adult education. Researchers now need to combine knowledge about adult learning with advances in reading research to develop new approaches to teaching of literacy to adults. Research on instructional alternatives for teaching adults basic literacy skills is fundamental for improvements in adult literacy programs.

The majority of the programs of the past and those currently in vogue tend to be bottom-up type instructional efforts. While success stories through these efforts are sometimes striking, they are too few and too mercurial. To meet the demands of tomorrow,
real alternatives will have to be explored, researched, and given careful reflection for adoption.

More natural approaches, which take more time and more teacher competence, could be utilized far more often than it is. In 1988, Gadsden completed a comparative study between two adult literacy programs. One group used a word recognition method and the other used a language experience approach. The language experience program was superior to the sight word program in nearly all dimensions evaluated—comprehension, reading awareness, and self-perceptions. Gadsden contended that the instructional styles and social interactions were the primary contributors to the differences in the two approaches. The evidence from this study would suggest that a top-down type of adult literacy program might well provide success in greater numbers than programs of the past. In fact, adult literacy programs of the future are likely to incorporate a discovery top-down type program which fully utilizes contextual, experiential, and social features in the instructional approach.

Chall (1987) claims that adults go through the same sequence and stages as children do in learning to read. The primary difference being one of the content of the materials in the early stages. This assertion is without justification and very likely is misleading for the development of future programs for adults. Unlike children, adults do have analytical abilities. In fact, adults very likely already possesses many of the cognitive abilities represented in the transformations between stages (conditions which Chall never characterizes). Assuming this
supposition is true, even the type and pace of programs for adults should in fact be quite different than those for children.

Chall further observes that the population in the United States for basic literacy is shrinking in comparison to those who are beyond this stage. Certainly workforce literacy needs enhancement, but this has to occur after permanent literacy is established. Sticht (1987) has suggested a general technical approach, integrating literacy and technical skill in what he calls a functional context method. While the functional context approach to instruction on the surface has merit, it still divides effort—effort of both the student and the teacher. Divided attention normally yields poor results. What is more likely required is a full time effort on the part of the student using teaching materials from the context of living and working. This approach is a natural one if the teacher uses a top-down experience type approach with the materials from the adult's real world. Of course, this would require a more personalized type of program for the adult learner. "Canned" commercial programs will not do.

Adult literacy programs of the future will probably be better served if more top-down, language experience based activity is used. Programs could be developed using the cognitive framework of Leont'ev's theory of activity (1978), as Coles (1984) and Dixon-Krauss (1990) did. These programs will utilize instruction embedded in social reality within the range of Vygotsky's (1962) zone of proximal development. Furthermore, programs which incorporate a top-down discovery type learning need to be developed and researched. Perhaps what is need most is a teaching
model which would permit group instruction with individual tailoring to allow for social interaction and still be cost effective (Powell, 1990).

The Politics of Literacy.

The basic literacy level as defined above is attainable for nearly 100% of any population in any culture, in any sovereign country. The fact it is not does not speak well for the governing groups which are responsible for education. Three things within the political situation have to change to enhance the future of adult literacy programs: governmental commitment, professional involvement, and reduction of "turfism".

The governmental groups which control the purse strings for education will have to make a real commitment in terms of financial resources. Funds for teachers, classroom space, materials, and perhaps temporary subsistence stipends and transportation reimbursement will have to be allocated while literacy training is been done. These stipends would be analogous to the GI Bill training programs for veterans during the past fifty years.

The reliance on volunteers and corporate training programs simply will not meet the needs for educating the rapidly growing numbers of those entering the illiteracy ranks. Only the naive or an eternal optimist can believe otherwise. It will take money, lots of money, clear and simple - money that is well spent and well channeled into vital programs.

The well intended international and national volunteer efforts are commendable. They are truly eleemosynary efforts.
Nevertheless, good intentions and altruism will never be enough to meet the demand. The law of increasing numbers of people and past program success patterns nullifies this humane approach from solving the literacy programs of the future. Neither will the rhetoric of having industry and business do this job. These institutions are in existence for the purpose of making a profit. The additional cost of long term education efforts is another liability, not an asset which can be turned into company profit. From the common practice of funneling the now too small amounts of money through the library system of the country will not be able to meet the challenge either. While librarians deal with materials for the literate, most have neither the education, the inclination, the training nor experience for conducting literacy classes. That is not their primary role in society.

The educational system is in existence solely for the purpose of providing instruction. It is the reason for its existence. As has happened many times in the past, its existence and parameters will have to be expanded to provide instruction for those who do not have basic literacy and for those who wish to upgrade the level of literacy they already have. It will take money, in FTE terms, for many small classes for literacy training and literacy enhancement. The present situation of using part time or half time teachers with an inadequate supply of materials will have to change for effective programs of the future. For literacy instruction to be effective, it must be led by those whose very existence is dependent on doing just that task. It cannot be a secondary and adjunct task. The task has grown too immense for this approach to catch up, much less get ahead of the situation.
For literacy programs of the future, the national, state, and local governing bodies will have to make a greater commitment to the literacy effort. This will require enlightened policies and the money to translate those policies into reality. The will of the body politic will have to be willing to pay the bill. Of course, they will pay for it, one way or another, i.e., social programs (welfare), unemployment compensation, prison training, etc. As a recent television advertisement says, "You can pay me now, or pay me later". The latter form of payment leaves lives damaged, which money nor program can repair. The only real economic and humanitarian options are to pay for it now.

The second issue in this category is professional involvement. It is dependent on the first issue — providing the resources for the instructional effort. Literacy education programs in institutions of higher education are practically non-existent. Literacy training is an adjunct to other primary training efforts: adult education, English education programs, reading programs, etc. For literacy programs of the future, teachers will have to be educated specifically for that task, and primarily for that task, just as they are now for becoming a reading teacher, a math teacher, a music teacher, an elementary teacher, etc. Further, quality training programs in colleges and universities will have to be developed especially for that focus. Students will have to chose to enter that area for full-time professional activity as they do now for other teaching majors.

Presently, the situation is a "catch-22". University personnel will not dedicate their efforts to develop quality literacy training programs and do research in the area until there
is a reward system for it. Presently the incentive is extremely low to non-existent. People cannot train for a program which does not exist, and school systems (including community colleges) will not hire people without credentials and the state financial support for their jobs. So round and round it goes. The end result is a continually growing illiterate population. It both a professional matter and a numbers game.

Local education authorities will have to provide space for the adult programs. The location of this teaching space is crucial. Having adults come to local school centers is intimidating and embarrassing to many adult illiterates. Having to come to a public school or an adult education center likely contributes to the unusually high drop-out rate. The location for adult learning centers might be better placed in inconspicuous sites such as vacant stores in local shopping centers. The parking is usually plentiful and it is a location that adults normally frequent. The rents for space would just be a normalized cost item as part of the process of providing the instruction for adults.

One disadvantage of the adult learning centers being located in a shopping center is that the professional teacher is isolated from other professionals. However, if there were teams of teachers working with the adults, in small groups, then interaction can occur among those working toward a common goal. Also, the hours of these teachers will have to vary. Some may teach during the day, while others will have to have the evening shift or weekends to accommodate those working adults.
Because the dollars for adult programs are so sparse, there is considerable competition for the financial resources. This leads to overly protective efforts to maintain what exists. As new programs develop, and they will be created, then the tendency to contend, claim, and compare among programs will be the inevitable result. Since education is, according to the constitution, the responsibility of the state, some coordination at that level will have to be done to reduce the tendency of "turfism". If federal monies, channelled through the state, and other state dollars are wisely allocated on an equalization formula, as is done now with the public schools, then all of the citizens and the nation benefit. T. S. Eliot (Selected Essays, 1932) was right. Questions of literacy and questions of politics cannot be divorced.

Literacy is based on reading power - a minimum designated level over which one has control. Literacy has to be first monolithic before it can be kaleidoscopic. It all starts with the will, the intent, the willingness to pay for what we think is truly important and to develop an equitable delivery system. But first we must have a clear conception of what it is that must be delivered. A baseline must be established from which to work, evaluate, and compare. Equal opportunity in every hamlet, town, and community can work to eradicate illiteracy. We can change the practices of the past, or continuing paying for our mistakes several times over through different social forms.


