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## Adult Learning Principles and Pension Participant Behavior

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## Adult Learning Principles and Pension Participant Behavior

### Abstract

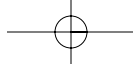
Most efforts to influence participants in workplace-based retirement plans to take full advantage of investment benefits available to them have limited impact. Despite years of educational initiatives, retirement saving for most Americans remains inadequate. Our study suggests that participants who receive information about their retirement savings in accord with research-based principles of how adults learn best, will markedly increase contributions to their retirement plans. Educational activities that are learner-centered guide participants through a re-cognition of how they can use information about investment options to devise effective financial plans. Activities that engage participants as active, self-determining individuals who will benefit from assistance that helps them to reflect upon, make informed choices about, and take control of their retirement saving plans.

### Disciplines

Economics

### Comments

The published version of this Working Paper may be found in the 2004 publication: *Pension Design and Structure: New Lessons from Behavioral Finance*.

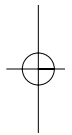


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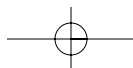
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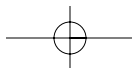
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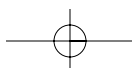
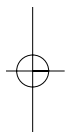
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## Chapter 12

# **Adult Learning Principles and Pension Participant Behavior**

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*Victor Saliterman and Barry G. Sheckley*

Many analysts suggest that American workers may not have enough money to support themselves during their retirement years. During 2001, for example, American households saved only 1 percent of their annual income (Conger, Drinkwater, and Dighe, 2002). According to the Employee Benefit Research Institute (EBRI) the median retirement account balance of US workers was under \$15,000 in 2001; fully 25 percent of employees do not participate in retirement plans; and the average annual contribution rate was a low 6 percent of pay (Holden and Van Derhei, 2003).

Decisionmaking research (Selnow, Chapter 2, this volume) offers perspectives on boosting retirement savings based on concepts such as risk perception and rule-based processes (Weber, Chapter 3, this volume); costs and benefits of choices (Iyengar, Huberman, and Jiang, Chapter 5, this volume); and “money attitudes” (MacFarland, Marconi, and Utkus, this volume).

Many of the economic models, however simply “describe investors as they are” implying that these models cannot explain how to change investors’ approaches to decisionmaking (Statman, Chapter 4, this volume). This analysis perhaps explains why Duflo and Saez (Chapter 8, this volume) report that an intervention planned to influence voluntary decisions had no impact on increasing enrollments in retirement savings programs—individuals in the treatment group (those who attended a retirement “fair”) participated in a 401(k) at the same rate (9 percent) as did those who did not attend the fair. To resolve the retirement savings problem, the approach of accepting 401(k) participants “as they are”—and presenting decision choices accordingly, even to the point of making options prescriptive—may have to be supplemented with tactics for changing how participants think about their retirement plans. Educational programs designed for this purpose, however, have a poor track record. For example, in a recent EBRI (2002) survey, 41 percent of workers recalled receiving educational material or participating in seminars about retirement planning and savings, yet almost three out of four (72 percent) made no changes as a result.

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Perhaps the design of these educational programs is problematic. For example, when asked, employees assigned a “C” grade to the retirement education programs offered by their employers (CIGNA, 2002). Additionally Weber (this volume), indicated that educational programs which present abstract information, emphasize statistical figures, and focus on far distant future consequences may fail to elicit “visceral” reactions to the potentially serious consequences of their retirement saving choices. While interventions based on behavioral decisionmaking models have promise for heightening retirement savings, we posit that supplemental approaches are also needed—especially when increasing voluntary contributions is a goal. One option may be to augment current programs with educational services designed according to research-based principles of how adults learn best. Accordingly, this study explored the proposition that participants who receive information about their retirement savings in accord with research-based principles of how adults learn best will markedly increase contributions to their retirement plans.

### Research-Based Principles of Learning

Since the 1940s, the metaphors of mind-as-computer and learning-as-information-processing have dominated educational practices (Mayer, 1996). The source of the metaphor is the input-throughput-output design of a computer. Learning processes, when depicted as “computer-like,” are described as occurring serially, one after another. The senses (akin to a keyboard) activate a step-by-step process in which the cerebral cortex (akin to a computer processor) pulls information from memory (akin to hard drive files). A cognitive process such as reasoning (akin to a software program) is then used to analyze the information. Following this metaphor, thinking and reasoning, involve processes similar to finding and opening files on a computer. To support this process, instruction simply has to deposit data into a computer file; the mind-as-computer then locates and uses the data as necessary.

Thinking, learning, and therefore instruction, are more complex than depicted by the mind-as-computer metaphor, however. Research indicates that the brain actually operates, not as a computer, but as a jungle-like network intricately connected to the body’s biology (Edelman, 1991). As described by Damasio (1994), the human brain and human body make up an “indissociable organism, integrated by means of mutually interactive biochemical and neural regulatory circuits (including endocrine, immune, and autonomic neural components)” (p. xvii). Many current theorists, including Damasio (1999), LeDoux (1996), and Edelman and Tononi (2000), spotlight the limits of the mind-as-computer metaphor and related data-depositing instructional programs. Numerous research studies indicate that only about 10–20 percent of information learned in classrooms that

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follow the mind-as-computer model is ever used in other settings (Baldwin and Ford, 1988). Researchers who understand the workings of the human brain emphasize that the complex emotional and visceral nature of learning must be supported by instruction that mirrors these affective and experiential processes (Damasio, 2003).

As an alternative to the mind-as-computer approaches to instruction the American Psychological Association's Board of Educational Affairs (APA, 2003), drawing on a comprehensive review of the research literature, concluded that educational practices were most effective when the learner—not the information to be learned—was the primary focus of educational practice. The principles for learner-centered instruction developed by this group—augmented with research on how adults learn best (Keeton, Sheckley, and Krechje-Griggs, 2002)—provide a template for designing educational services to influence how participants in 401(k) plans think about and plan for their retirement. Following the principles outlined in Table 12-1, educational services for individuals in retirement plans would be designed to engage participants as goal-directed and self-regulating learners who are poised to take responsibility for their own learning. Additionally, the services would aid participants in cultivating and developing retirement savings plans consistent with their personal goals and aspirations. The services would also assist participants to integrate new information about retirement options into their prior knowledge about saving for retirement, their personal values about money, the cultural norms that guide their financial thinking, and their prior investment experiences.

Since retirement planning requires a well-developed repertoire of thinking and problem-solving skills, effective educational services must engage participants in activities that help them develop such skills (e.g. reflection on their own strategies or interactions with others who are more knowledgeable about retirement). Since effective retirement planning requires individuals to plan, monitor, and evaluate their own decisions, educational planning services would assist participants in setting reasonable savings goals, selecting appropriate planning strategies, monitoring their progress towards these goals, and devising ways to address problems as they occur. Ideal educational services would also be described as a “warm hearth,” in that they would provide a setting that embraced individual differences, respected diversity in all its forms, cultivated participants' positive beliefs about themselves as retirement planners, encouraged positive emotions such as curiosity, and dampened negative thoughts such as excessive fears, anxieties, or ruminations about failure. At their best, educational services would kindle participants' natural curiosity to learn, by engaging participants in novel tasks relevant to their own personal interests and providing for their personal choice and control. Finally, instead of following a one-size-fits-all format, effective educational programs would respect and embrace participants' unique strategies, approaches, and capabilities for learning.

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TABLE 12-1 Principles of Learning with Related Practices

<i>Principle</i>	<i>Related Practice</i>
<ul style="list-style-type: none"> <li>• Successful learning is an intentional process of constructing meaning from information and experience</li> </ul>	<ul style="list-style-type: none"> <li>• Actively engage participants as goal-directed and self-regulating individuals who assume personal responsibility for learning about their retirement options</li> </ul>
<ul style="list-style-type: none"> <li>• Successful learning, the acquisition of complex knowledge and skills, is a process that occurs over time with support and instructional guidance</li> </ul>	<ul style="list-style-type: none"> <li>• Gain participants' commitment to persist in developing retirement plans and to invest considerable time and energy in a process to create plans that are consistent with their personal aspirations and interests</li> </ul>
<ul style="list-style-type: none"> <li>• Successful learning is a process of integrating new knowledge with a learner's prior knowledge and understanding</li> </ul>	<ul style="list-style-type: none"> <li>• Engage participants in linking new knowledge about retirement options to prior experiences, and using the new knowledge to refine their retirement plans</li> </ul>
<ul style="list-style-type: none"> <li>• Successful learning is a process that requires an expansive repertoire of thinking and reasoning strategies</li> </ul>	<ul style="list-style-type: none"> <li>• Engage participants in reflection about their retirement plans, and interactions with others who are knowledgeable about retirement options</li> </ul>
<ul style="list-style-type: none"> <li>• Successful learning is a process that involves higher order strategies for selecting and monitoring mental operations</li> </ul>	<ul style="list-style-type: none"> <li>• Engage participants in reflections on how they think and learn, setting reasonable retirement savings goals, selecting potentially appropriate retirement planning strategies, monitoring their progress toward these goals, and devising ways to address problems if they occur</li> </ul>
<ul style="list-style-type: none"> <li>• Successful learning is a process influenced by environmental factors including culture and social relations</li> </ul>	<ul style="list-style-type: none"> <li>• Provide a supportive environment for discussions about retirement, a setting that embraces diversity in all its many forms including cultural norms about money, savings, and retirement</li> </ul>
<ul style="list-style-type: none"> <li>• Successful learning is a process influenced by a learner's emotional states, beliefs, interests, goals, and habits of thinking</li> </ul>	<ul style="list-style-type: none"> <li>• Cultivate participants' positive self-beliefs about themselves as retirement planners. Encourage positive emotions such as curiosity to</li> </ul>



TABLE 12-1 *Continued.*

<i>Principle</i>	<i>Related Practice</i>
	dominate over negative emotions (e.g. anxiety or panic) and related thoughts (e.g. ruminating about failure)
<ul style="list-style-type: none"> <li>• Successful learning is a process in which creativity, higher order thinking, and natural curiosity all contribute to motivation to learn</li> </ul>	<ul style="list-style-type: none"> <li>• Engage participants in novel tasks related to retirement that are relevant to personal interests, and provide for personal choice and control</li> </ul>
<ul style="list-style-type: none"> <li>• Successful learning is a process that is influenced by social interactions, interpersonal relations, and communication with others</li> </ul>	<ul style="list-style-type: none"> <li>• Provide participants with opportunities to interact and to collaborate with others about retirement options</li> </ul>
<ul style="list-style-type: none"> <li>• Successful learning is a highly individual process</li> </ul>	<ul style="list-style-type: none"> <li>• Embrace participants' unique strategies, approaches, and capabilities for learning about retirement options</li> </ul>

*Source:* Author's analysis.

### Adults as Learners

The principles and practices outlined in Table 12-1 apply equally to adults and children, even though “learning” for most of the last century was conceived of as an activity for the young, a perspective that led Malcolm Knowles (1978) to describe adult learners as a “neglected species.” The notion that “old dogs cannot learn new tricks,” first introduced in the 1930s (Lorge, 1936), was based on the Wechsler “deterioration quotient” (Wechsler, 1958). According to this formulation, human “intelligence” increased until around 20 years of age and then began a slow and steady decline that continued through the life span. Follow-up research confirmed this pattern, but only when learning and intelligence were measured as the “fluid” ability of working memory to perform tasks such as memorizing strings of numbers (Rogoff and Gardner, 1984). According to Welford (1993), “While many studies suggest that adult memory declines with age, these results are inconsistent with the common observation that most people as they grow older seem to cope very well with the tasks and problems of everyday life.”

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### *Adult Learning as Re-Cognition*

The principles and practices outlined in Table 12-1 are also consistent with research indicating that adult learning is best conceived *not* as process of remembering (akin to recalling information stored in computer files), but rather as a process of re-cognition: “Seeing” the relationships between new information and knowledge gained from prior experiences. As Kolb (1984) observed, all learning is re-learning, since experience always intervenes. The difference between learning-as-memory (based on the mind-as-computer metaphor) and learning-as-recognition (based on current research on how the brain actually functions) can play out in different approaches to retirement planning. Programs following the mind-as-computer approach focus on filling up data files in the mind with numbers, statistics, projections, and related information. In contrast, programs that followed a learning-as-perception approach, following the research-based practices outlined in Table 12-1, engage individuals in an ongoing process of re-cognition that helps them “see” how information about investments has both immediate and long-term relevance to their lives.

According to the learning-as-recognition viewpoint, participants, when confronted with novel information such as that presented in retirement planning communiqués, will work to “see” if a relationship exists between this new information and a former event or experience. If such a link, or analogy, can be made, individuals will use this analogy to reason, judge, and make decisions about the relevance or viability of the new information (Gentner and Markman, 1997).

This analogy mapping process is not always effective, however. Amidst its many astounding features, the human mind does have a tendency to resolve issues in the simplest way possible, sometimes using surface similarities to establish links between new information and a prior experience (Holyoak and Thagard, 1997). When presented with new information about investing for retirement, participants may process the information using, for example, a simplistic “banking” analogy. The banking analogy may be useful for the moment because it has worked for them in previous situations related to money and investments. For the banking analogy to be most effective, however, participants will have to come to a re-cognition of how it must be restructured to embrace the complexities of investing for retirement.

### *Adults as Self-Directed Learners*

The principles and practices outlined in Table 12-1 are also consistent with research on how adults plan and carry out their learning. In his groundbreaking research, Tough (1979) found that adults spent over 100 h per week in intentional efforts to gain and retain knowledge. Most of this learning (73 percent) was self-planned, and did not involve working with teachers in classroom settings. Adults actively focused their learning on problems

and issues of interest to them. They did not pursue learning just because others—teachers, spouses, or financial advisers—deemed a topic to be “important.”

Since these results ran counter to many educational practices, they spawned a good deal of follow-up research that confirmed the original findings. The results were so consistent that “effective” adult learning is now described as “self-directed,” “self-planned,” or “autonomy-enhancing” process (Candy, 1991).

Self-direction, however, does not mean that adults learn best when left alone without guidance to assist their learning (Brookfield, 1985). Instead, as adults direct their efforts to resolve genuine problems, they can benefit from guidance and information that will enhance their learning (Merriam and Caffarella, 1999).

### **Influencing Participant Behavior**

We pose the following proposition in this study: Participants who receive information about their retirement savings in accord with research-based principles of how adults learn best will markedly increase contributions to their retirement plans. This is explored in two separate case situations. The first involves using research-based principles and practices of how adults learn best to influence participants who called into a service center for any reason whatsoever to increase contributions to their retirement accounts. The second used research-based principles of how adults learn best to prompt participants to increase their retirement savings through targeted communication and education programs.

#### *Case 1: Participant Service Center*

Agents who work in the CIGNA Retirement & Investment Services (CR&IS) Participant Service Center (PSC) provide information to more than 2,200 callers each day. When participants contact the PSC, they can check on the status of their accounts, change their contributions, change the distribution of their investments, arrange for loans, or receive information on a wide array of retirement and financial topics. In most cases, they call searching for information about 401(k) loans, reallocating investments, or making withdrawals. Many also call to request distribution forms or to inquire about the status of a check that will provide payment for either a loan or withdrawal. Prior to this research project, very few (if any) participants called to voluntarily increase contributions to their retirement accounts.

Before this research project began, the PSC operated in a manner common to most call centers. Handling calls as quickly and as efficiently as possible was a top priority. Representatives gave prompt answers to questions. Requests were handled briskly. Coaches monitored representatives in terms of the call volume they handled as well as number of transactions

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completed. Representatives had no explicit responsibility for trying to influence participant behavior; rather their role was a reactive one. They listened to callers' requests and responded as effectively and efficiently as possible. The more calls they handled, the better.

During the summer of 2002, the PSC embarked on a research project to determine whether research-based principles on adult learning could be used to influence participants to increase contributions to their retirement plans, irrespective of the original purpose of their call. A process for influencing participant behaviors in this manner, termed the "Consultative Approach," adhered to the research-based principles and practices of how adults learn best summarized above. As such, it included three interactive steps: (i) Assess, (ii) Educate, (iii) Influence.

When callers contacted the PSC, agents following the Consultative Approach worked quickly to assess the caller's situation. Factors such as age, prior history of activity, length of time in the plan, nature of the request, and similar items were considered. Additionally, representatives would listen "between the words" to see if they could pick up cues (e.g. tone of voice, issues raised by the participant, background noises, and the like) to make a personal connection with the caller.

Next, the representative would engage in a dialogue for the purpose of educating and influencing the participant's views about saving for retirement. The representative would probe to test the caller's understanding of retirement planning options: "What age would you like to retire? Did you know that you are not taking full advantage of your retirement options?" If an opening appeared (e.g. if the customer said "Tell me more about the options I'm not using fully"), representatives would lead the caller through a process of re-cognition to help him rethink the roles of different options in his retirement plan. During the dialogue, the representative would provide expert information about positive and negative impacts of decisions each participant contemplated.

Finally, the representative would direct the process toward having the caller make a decision that would lead to a result such as increasing contributions, changing investment choices, or choosing alternatives to taking a loan against a retirement plan. The caller's decision, in turn, would help the representative assess the caller's situation and perhaps continue the discussion on a related topic, set arrangements for the representative to send additional information, plant a seed that may prompt a participant to consider future actions, or set up a time for a follow-up call to discuss additional options for retirement planning.

By using the consultative process, agents adopted an "instructional" stance when answering calls. Instead of merely reacting to participant requests, representatives worked as "educators" who guided participants through focused discussions about preparing financially for retirement. In this role, agents engaged participants as "learners in disguise" who could be vulnerable to a

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“teachable moment,” in that callers sought information about retirement plans for the purpose of using this information. From an instructional viewpoint, the caller’s queries provided agents-as-educators with insights about how the caller was thinking about and conceptualizing retirement planning. With all this information at hand, representatives-as-instructors could then prompt participants to think about their retirement in broader, more complex terms and thereby influence them to take advantage of retirement options they were not using (e.g. employers’ matching contributions).

Table 12-2 outlines changes in participant contributions achieved during the project. The first column represents an average of each indicator from January 2001 through August 2002, the period before the start of the research project. In September 2002, the project began, and the next three columns off comparisons with the baseline measures. Each row in Table 12-2 lists indicators that document increases in contributions to defined contribution (DC) plans associated with the Consultative Approach.

During the 20 months prior to the use of the Consultative Approach, PSC agents handled almost 46,000 calls each month related to DC plans. This number remained relatively constant over the course of the project, suggesting that changes in participant behavior involving their DC plans were not related to an explosion of interest about DC plans among participants. Their concerns, in terms of numbers of DC calls per month, were relatively stable from January 2001 through June 2003.

One indication of the results achieved using the principles of how adults learn best is evident in the measure “total number of contribution calls/month” (Table 12-2, row 2). From January 2001 the inception of the

TABLE 12-2 Summary of Results Achieved using Consultative Approach

	<i>Average Prior 20 Months</i>	<i>Average Sept.–Nov. 2002</i>	<i>Average Dec. 2002–Feb. 2003</i>	<i>Average Mar.–June 2003</i>
Total number DC calls/month	45,813	45,620	47,058	43,418
Total number contribution calls/month	2,050	4,817	5,068	3,864
Number contribution increase calls/month	Negligible	1,372	1,555	1,557
Percent contribution increase calls	Negligible	28.5	30.8	43.0
Total dollar increase/month (annualized)	Negligible	2,134,557	3,063,397	2,864,649

Source: Authors’ analysis.

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research project, an average of about 2,000 calls/month came to the PSC regarding DC contributions. When the Consultative Approach began, however, this number more than doubled to an average of 4,817 calls during the September–November 2002 period. Previously, few if any callers contacted the PSC to voluntarily increase their contributions, hence the “negligible” entry in the first cell of row 3 in Table 12-2. With the use of the Consultative Approach, however, about 1,400–1,500 participants/month discussed contributions to their DC plans during their calls. Additionally, as portrayed in row 4, the percentage of calls related to increasing contributions grew steadily from 28 percent during the September–November 2002 period to 43 percent during the March–June 2003 period. Finally, and perhaps most importantly, row 5 indicates the overall financial impact related to the use of the Consultative Approach. Before, there were very few if any increases in contributions that could be tracked to participants’ contact with the PSC. Afterwards, contributions rose steadily from about \$2,000,000 per month (annualized) during the September–November, 2002 period to about \$3,000,000/month (annualized) during 2003. The gains were likely even larger than reported in Table 12-2, however, since the figures listed in the Table 12-2 do not include employer matching contributions that may have accompanied participants’ contribution increases. Anecdotal information suggests that a similar level of success occurred in areas such as convincing participants to avoid drawing loans from their 401(k) accounts.

Cost-benefit analyses also underscore the success of the program. Start-up costs (approximately \$200,000) as well as recurring costs such as accommodating increased talk-time per call (approximately \$200,000/year) were largely offset by annual revenues from increases in assets under management (e.g. \$200,000 for 2003). Additional gains were experienced in terms of lower employee turnover, which went from over 50 percent in 2001 to under 10 percent in 2003, at a saving estimated at approximately \$700,000/year. Further, agents reported that using the Consultative Approach made their work more satisfying, and morale and teamwork yielded estimated gains of approximately \$150,000/year.

#### *Case 2: Communications and Education Programs*

Using the research-based principles of how adults learn summarized in Table 12-1, CR&IS also customized its educational and communication activities to embrace individual client differences in background, interests, and life stage. No activities began until an assessment of participants’ needs and specific goals was completed (see left-hand side of Figure 12-1). Additionally, targeted programs—consisting of communications (e.g. print materials, emails, and statements), informational resources (e.g. call service center, Internet site), and educational activities (e.g. workshops)—were offered in an integrated manner over a 6–12 week period (see Figure 12-1 middle). These programs

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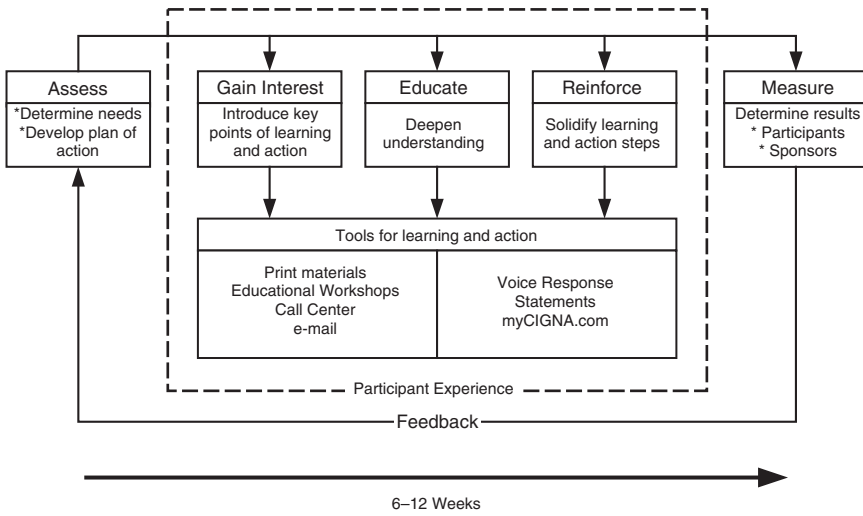


Figure 12-1. Communications and education delivery model.

Source: Authors' analysis.

and activities were targeted on specific topics of interest to the participants (e.g. getting started in the plan, maximizing workplace savings, staying abreast of fund changes, managing asset allocations, consolidating retirement accounts).

Each targeted program engaged participants in a process of re-cognition that allowed them to think through how the information pertained to their individual retirement situations. First, individuals were introduced to key ideas as they related to specific life stage issues and related problems. Using straightforward assessment tools, participants determined their “investor profiles,”—drawing on their current financial situation, their life stage, and their preferences for taking investment risk. From this information, a plan of action was developed. Next, opportunities were provided for participants to deepen their understanding through focused educational workshops. Finally, activities and events were planned to help participants solidify their re-cognition of how the information pertained to their individual retirement situation.

By engaging participants actively over a 6–12 week period, in a process of reframing their ideas of retirement planning, the communication and educational events helped participants weave the “vocabulary” of retirement planning into the ongoing conversation of their lives and, in the process, take actions that moved them closer to a financially secure retirement. Additionally, curricula used in the workshops were completely revised to make them more problem-based, more focused on issues each participant brought to the workshops, and more centered on interactions among participants.



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The educational and communication activities were evaluated with both qualitative and quantitative measures. In addition to assessing levels of learning, intended action, and participant satisfaction with a program, researchers also measured actual actions taken. As each program concluded, it was evaluated based on program goals; for example, the number of eligible non-participants who enrolled in a plan, the percentage increase in contributions, changes in portfolio allocations, rollover of eligible retirement accounts to the plan sponsor's retirement plan. To ensure the accuracy of its measures, CR&IS engaged independent accountants, to review results. The findings were then used to assess the impact of the educational and communication events on participants' behaviors (see right-hand side of Figure 12-1). Using this feedback, the cycle started anew.

When the "traditional" format used during January–March 2002 period is compared with the "adult learning based" format that took hold during November–December 2002, the results underscore the benefit of reinforcing the "save for retirement" message with an integrated set of activities. During the January–March 2002 period, results are available for activities with one plan sponsor. With this sponsor, a workshop with 20 or so participants using a standard lecture format realized a total increase in contributions to retirement plans of about \$65,000. This program was not integrated with other programs in a way that reinforced the "save for retirement" message. During November–December 2002, results are available for a similar set of three workshops—also enrolling about 20 or so participants—with other plan sponsors. These workshops, however, were part of an integrated and targeted series that took place over time to reinforce the "save for retirement" message. These November–December Targeted Programs were also personalized to participants, in that they led participants through a re-cognition process of rethinking their retirement options. These programs resulted in an average gain of \$230,000 in deferrals per program.

Though the database is small for this comparison, the trend suggests that in terms of increased contributions, initiatives based on research-based principles of how adults learn best were effective in influencing participant behavior.

### **Conclusions**

Policymakers, financial service providers, and employers face a daunting challenge. Many pension plans allow individuals to take advantage of tax-efficient options for building retirement savings. Not only do these plans benefit from the ease of payroll deduction, but also employee contributions are often complemented by an employer match. Furthermore, extensive resources are poured into educating individuals about saving, investing, and retirement planning. Nevertheless, people are persistently



slow to prepare adequately for the financial demands of retirement. Saving rates and amounts saved are insufficient for many to enjoy a financially secure retirement.

Our research suggests that programs founded on research-based principles of how adults learn best can influence participant investment decisions so as to provide them with a more secure retirement. Financial service providers can build on principles of how adults learn best by using a learner-centered process to guide participants through a re-cognition of how they can use information about investment options to devise effective financial plans. The techniques work best when they engage learners as active, self-determining individuals who will benefit most from assistance that helps them to reflect on and make informed choices about their retirement saving plans.

## References

- American Psychological Association Board of Educational Affairs. 1995. "Learner-centered Psychological Principles: A Framework for School Redesign and Reform." [www.apa.org/ed/lcp.html](http://www.apa.org/ed/lcp.html).
- Baldwin, Timothy T. and J. Kevin Ford. 1988. "Transfer of Training: A Review and Directions For Future Research." *Personnel Psychology* 94(2): 192-210.
- Brookfield, Stephen D. 1985. "Self-Directed Learning: A Critical Review of Research." In *Self-Directed Learning: From Theory to Practice*, ed. Stephen D. Brookfield. San Francisco: Jossey-Bass: 5-16.
- Candy, Philip. 1991. *Self-direction for Lifelong Learning*. San Francisco: Jossey-Bass.
- CIGNA Retirement and Investment Services. 2002. "Workplace Report on Retirement Planning." Hartford CT.
- Conger, Tom, Cynthia Drinkwater, and Atul Dighe. 2002. "Delegate Resources: 2002 National Summit on Retirement Savings." Washington, DC: International Foundation of Employee Benefit Plans, Inc.
- Damasio, Antonio R. 1994. *Descartes' Error: Emotion, Reason, and the Human Brain*. New York: Avon Books.
- . 1999. *The Feeling of What Happens: Body and Emotion in the Making of Consciousness*. New York: Harcourt Brace & Company.
- . 2003. *Looking for Spinoza: Joy, Sorrow, and the Feeling Brain*. New York: Harcourt, Inc.
- Edelman, Gerald M. 1991. *Bright Air, Brilliant Fire: On the Matter of the Mind*. New York: Basic Books.
- and Giovanni Tononi. 2000. *A Universe of Consciousness: How Matter Becomes Imagination*. New York: Basic Books.
- Employee Benefit Research Institute (EBRI). 2002 *Retirement Confidence Survey*. Washington, DC.
- Gentner, Dedre and Arthur B. Markman. 1997. "Structural vs. Syntactic Matching: Analogy Entails Common Relations." Paper presented at the Nineteenth Annual Conference of the Cognitive Science Society. Stanford University, Stanford, CA.

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- Holden, Sarah and Jack Van Derhei. 2003. "401(k) Plan Asset Allocation, Account Balances, and Loan Activity in 2001." Employee Benefit Research Institute (EBRI). [www.ebri.org/pdfs/0303ib.pdf](http://www.ebri.org/pdfs/0303ib.pdf).
- Holyoak, Keith J. and Paul Thagard. 1997. "The Analogical Mind." *American Psychologist* 52(1): 35-44.
- Keeton, Morris T., Barry G. Sheckley, and Joan Krechje-Griggs. 2002. *Effectiveness and Efficiency in Higher Education for Adults: A Guide for Fostering Learning*. Dubuque, IA: Kendall/Hunt Publishing Company.
- Knowles, Malcolm. 1978. *The Adult Learner: A Neglected Species*, 2nd edn. Houston: Gulf.
- Kolb, David A. 1984. *Experiential Learning: Experiences as the Source of Learning and Development*. Englewood Cliffs: Prentice-Hall.
- LeDoux, Joseph. 1996. *The Emotional Brain: The Mysterious Underpinnings of Emotional Life*. New York: Simon and Schuster.
- Lorge, Ivan. 1936. "The Influence of the Test upon the Nature of Mental Decline as a Function of Age." *Journal of Educational Psychology* 27: 100-110.
- Mayer, Richard E. 1996. "Learners as Information Processors: Legacies and Limitations of Educational Psychology's Second Metaphor." *Educational Psychologist* 31(3/4): 151-161.
- Merriam, Sharan B. and Rosemary S. Caffarella. 1999. *Learning in Adulthood: A Comprehensive Guide*, 2nd edn. San Francisco: Jossey-Bass Publishers.
- Rogoff, Barbara and William Gardner. 1984. "Adult Guidance of Cognitive Development." In *Everyday Cognition: Its Development in Social Context*, ed. Barbara Rogoff and Jean Lave. Cambridge: Harvard University Press: 95-116.
- Tough, Allen. 1979. *The Adult's Learning Projects: A Fresh Approach to Theory and Practice in Adult Learning*, 2nd edn. Toronto: Ontario Institute for Studies in Education.
- Wechsler, David. 1958. *The Measurement and Appraisal of Adult Intelligence*. Baltimore: Williams & Wilkins.
- Welford, Alan T. 1993. "The Gerontological Balance Sheet." In *Adult Information Processing: Limits on Loss*, ed. John Cerella, John Rybash, William Hoyer, and Michael L. Commons. San Diego, CA: Academic Press: 3-12.