

## ADULT LEARNING

### Contexts of Adult Learning

The adage, “Experience is the best teacher,” is unassailable. Adults are learning constantly, so long as they are experiencing their environments with some degree of consciousness.<sup>1,2</sup> Irrespective of the commonplace of informal adult learning,<sup>3</sup> the practice of adult education focuses on several more-or-less institutional contexts for adult learning.

**Adult Literacy and Basic Education** includes, most prominently, adult literacy instruction, but also might include teaching home financial management skills,<sup>4</sup> or civics for those seeking citizenship.<sup>5</sup> Considerable effort in adult basic education is also devoted to preparing learners to earn alternative secondary education credentials, such as the General Education Diploma (GED) in the U.S., for those who have dropped out of school.

Considerable controversy surrounds the choice of criteria for what counts as functional literacy.<sup>6</sup> Nonetheless, detailed statistics for the U.S.<sup>7</sup> and worldwide<sup>8</sup> indicate heterogeneous literacy rates, but with illiteracy generally on the decline. Evidence suggests that higher literacy rates can reduce the poverty burdens in all nations, but especially in developing nations.<sup>9</sup> But the universality and the intensity of the relation between literacy rates and national and individual prosperity are subject to ongoing research.<sup>10</sup>

The need to increase participation and retention rates in adult basic and literacy education is likewise the subject of a lively body of research.<sup>11</sup> Some deterrents to participation are attitudinal, but others are structural. Common deterrents include:<sup>12</sup>

- Individual, family, or home-related problems, including the need for childcare
- Cost concerns
- Incompatibilities of time and/or place, including lack of transportation or interference with job hours
- Questionable worth, relevance, or quality of available educational opportunities

1 Dewey, J. (1910). *Experience and Nature*. Chicago: University of Chicago Press.

2 Cell, E. (1984). *Learning how to learn from experience*. Albany: State University of New York at Albany.

3 Solomon, N., Boud, D., & Rooney, D. (2006). The in-between: Exposing everyday learning at work. *International Journal of Lifelong Education*, 25, 3–13.

4 Koenig, L. A. (2007). Financial literacy curriculum: The effect on offender financial management skills. *Journal of Correctional Education*, 58, 43–56.

5 Banks, J. (1990). Citizenship education for a pluralistic democratic society. *Social Studies*, 81, 210–215.

6 Roberts, P. (2005). A framework for analysing definitions of literacy. *Educational Studies*, 31, 29–38.

7 <http://www.ed.gov/about/offices/list/ovae/pi/AdultEd/aefacts.html>

8 [http://portal.unesco.org/education/en/ev.php-URL\\_ID=24149&URL\\_DO=DO\\_TOPIC&URL\\_SECTION=201.html](http://portal.unesco.org/education/en/ev.php-URL_ID=24149&URL_DO=DO_TOPIC&URL_SECTION=201.html)

9 van der Veen, R. & Preece, J. (2005). Poverty reduction and adult education: Beyond basic education. *International Journal of Lifelong Education*, 24, 381–391.

10 Saha, S. K. (1996). Literacy and development in South Asia. *Contemporary South Asia*, 5, 263–288.

11 Alan, O. B. (2000). Retaining adult learners in the first three critical weeks: A quasi-experimental model for use in ABE programs. *Adult Basic Education*, 10, 55–69.

12 Scanlan, C. (1986). Deterrents to participation: An adult education dilemma. (ERIC Information Series No. 308). Columbus, OH: The ERIC Clearinghouse on Adult, Career, and Vocational Education, The National Center for Research in Vocational Education, The Ohio State University.

- Negative perceptions of the value of education in general
- Lack of motivation or indifference toward learning
- Lack of self-confidence in one's learning abilities
- A general tendency toward nonaffiliation, and inclination to isolate oneself from institutions

**Workplace education** is another common context for adult learning. Workplace education has traditionally been framed in terms of providing workers with skills to improve their productivity or for retooling them when old work assignments become obsolete.<sup>13</sup> Research on program needs and efficacy is conducted at worksites such as factories where workers need updated skills<sup>14</sup> and in the armed forces, where recruits require training in military protocols and technology.<sup>15</sup> A topic of keen interest within workplace education pertains to the notion of **situated cognition**, the degree to which knowledge and learning is inextricably linked to the particular context in which that knowledge is used.<sup>16</sup> Thus learning to program a production line robot is intimately embedded in the culture of the factory floor.

In **organizational training and development**, the focus is on providing a range of management and communication skills needed by leaders and supervisors to enable effective decision-making and information flow in complex organizations.<sup>17</sup> Typical topics in such training are leadership, stress management, time management, mentoring, and running effective meetings. One topic that has been the object of considerable research is **transfer**, that is, the degree to which learning in training classrooms and simulations actually impacts behavior on the job.<sup>18</sup> Another issue of interest is **return on investment (ROI)** for training programs,<sup>19</sup> especially since the training unit within a human resources department is often regarded as the least essential and most vulnerable unit in an organization.

Adults often undertake learning projects, not so much for any instrumental purpose or because of economic motives, but for **self-actualization**.<sup>20</sup> Of course work-related learning or acquisition of basic skills need not be divorced from self-actualization; indeed, the most potent motivation for adult learning may be a combination of the desire for self-actualization with other more practical factors.<sup>21</sup> The Elderhostel movement<sup>22</sup> and the Chautauqua movement<sup>23</sup> are but two examples of contexts for voluntary adult learning.

## Andragogy

No doubt there are commonalities among learning processes across the life span,<sup>24</sup> but as a result of developmental processes, experiential factors, and life circumstances, adult learning is in some respects qualitatively different from learning at any other stage of life.<sup>25</sup> The concept of andragogy, originated by

- 
- 13 Fenwick, T. J. (2000). Putting meaning into workplace learning. In A.L. Wilson and E.R. Hayes (Eds.), *Handbook of Adult and Continuing Education*, 294–311. San Francisco: Jossey-Bass.
- 14 Rose, A. D., Jeris, L., & Smith, R. (2005). Identity and practice at steel mill learning centers. *Harvard Education Review*, 107, 1305–1334.
- 15 Kime, S. F., & Anderson, C. L. (2000). Contributions of the military to adult and continuing education. In A.L. Wilson and E.R. Hayes (Eds.), *Handbook of Adult and Continuing Education*, 464–479. San Francisco: Jossey-Bass.
- 16 Brown, J. S., Collins, A., & Duguid, P. (1989). Situated cognition and the culture of learning. *Educational Researcher*, 18:1, 32–42.
- 17 Laird, D. (2003). *Approaches to training and development*, 3rd ed. New York: Basic Books.
- 18 Yannil, S., & McLean, G. N. (2001). Theories supporting transfer of training. *Human Resource Development Quarterly*, 12, 195–208.
- 19 Rowden, R. W. (2001). Exploring methods to evaluate the return on investment from training. *American Business Review*, 19, 6–13.
- 20 Jutras, P. J. (2006). The benefits of adult piano study as self-reported by selected adult piano students. *Journal of Research in Music Education*, 54, 97–110.
- 21 Fetzer, S. J. (2003). Professionalism of associate degree nurses: The role of self-actualization. *Nursing Education Perspectives*, 24, 139–144.
- 22 Arsenaault, N., Anderson, G., & Swedburg, R. (1998). Understanding older adults in education: Decision-making and Elderhostel. *Educational Gerontology*, 24.
- 23 Scott, J. C. (2005) The Chautauqua vision of liberal education. *History of Education*, 34, 41–59.
- 24 Houle, C. O. *The design of education*, 2nd ed. San Francisco: Jossey-Bass.
- 25 Tennant, M. (1997). *Psychology and adult learning*, 2nd ed. London: Routledge.

Malcolm Knowles,<sup>26</sup> captures the uniqueness of adult education and learning. Certainly the concept of andragogy is not without controversy.<sup>27</sup> Authors debate about whether andragogy is an explanatory theory, a philosophy of teaching and learning, or a set of prescriptive techniques.<sup>28</sup> Other critics charge that the andragogy perspective fails to sufficiently take into account the social, economic, and political realities that constrain adult learners.<sup>29</sup>

Yet the andragogy perspective wields a powerful influence on research about adult learning. The andragogy perspective is founded on **five assumptions about adult learners**.<sup>30</sup>

- Adult learners are self-directed.
- Adult learners have acquired a wealth of experience upon which new learning can be based.
- Readiness to learn for adults is a function of need that arises from changing life circumstances.
- Adult learning is highly practical. Adults come to learning in order to perform a task, solve a problem, or achieve higher satisfaction in life.
- Adults are motivated to learn by internal rather than external factors.

**Seven features of andragogical process design** for instruction follow from those assumptions about learners.<sup>31</sup>

- An optimal climate for adult learning eschews typical classroom layouts that favor one-way transmission. The optimal climate fosters mutual respect, collaboration, trust, supportiveness, openness, authenticity, pleasure, and “humanness.”
- Adult learners are involved in program planning.
- Adult learners diagnose their own educational needs.
- Adult learners formulate their own learning objectives.
- Adult learners formulate their own learning plans to meet those objectives.
- Tools, most prominently learning contracts, are needed to help learners carry out their learning plans.
- Adult learners are involved in evaluating their own learning.

The concept of **self-directed learning**, key to andragogy, is the subject of considerable theory and research.<sup>32</sup> The **Staged Self-Directed Learning Model**<sup>33</sup> is perhaps the most prominent explication of the role of self-directed learning in education. It describes four learner stages and the concomitant teacher stances that function at each of those levels.

1. Student is a dependent learner; teacher serves as authority or as coach.
2. Student is an interested learner; teacher serves as motivator and guide.
3. Student is an involved learner; teacher serves as a facilitator.
4. Student is a self-directed learner; teachers serve as a consultant or delegator.

---

26 Knowles, M.S. and Associates. (1984). *Andragogy in action*. San Francisco: Jossey-Bass.

27 Elias, J. L. (1979). Andragogy revisited. *Adult Education*, 29, 252–255.

28 Pratt, D. D. (1993). Andragogy after twenty-five years. In S.B. Merriam (Ed.), *Update on adult learning theory. New Directions for Adult and Continuing Education*, 57. San Francisco: Jossey-Bass.

29 Grace, A. P. (1996). Taking a critical pose: Andragogy-Missing links, missing values. *International Journal of Lifelong Education*, 15, 382–392.

30 Knowles, M. S. and Associates. (1984). *Andragogy in action*, 9–12. San Francisco: Jossey-Bass.

31 Ibid, 15–18.

32 Garrison, D. R. (1997). Self-directed learning: Toward a comprehensive model. *Adult Education Quarterly*, 48, 18–33.

33 Grow, Gerald. (1991). Teaching learners to be self-directed. *Adult Education Quarterly*, 41, 125–149.

## Adult Learning Styles

Learning style—the varying ways in which people acquire, process, and retain information—is most often regarded as an individual difference variable, rather like personality. Therefore much research and theory about learning styles is treated as generalizable across ages. Thus, for example, **Howard Gardner’s taxonomy of multiple intelligences**<sup>34</sup> is frequently applied in adult education and training as well as in elementary and secondary education.<sup>35</sup> The taxonomy includes seven types of intelligences, different configurations of which (they are interdependent, not independent) dominate in different learners:

1. Linguistic intelligence
2. Logical-mathematical intelligence
3. Musical intelligence
4. Bodily-kinesthetic intelligence
5. Spatial intelligence
6. Interpersonal intelligence
7. Intrapersonal intelligence, or self-awareness

Another common learning style taxonomy that is profitably applied to adult learning<sup>36</sup> as well as to childhood education is the **Dunn and Dunn model**.<sup>37</sup> It attempts to integrate findings from five domains.

1. Environmental preferences: degree of quiet, amount of light, temperature, seating preferences
2. Emotional factors: persistence, responsibility
3. Sociological preferences: learning alone or with peers
4. Physiological factors: perceptual strengths, time of day
5. Psychological processing style: global vs. analytic, impulsive vs. reflective

Although many elements of learning style may indeed be personality traits that are common across ages, effects of physiological changes in the brain<sup>38</sup> and of experience and of life circumstances also render certain elements of learning style unique to adults. **Kolb’s Learning Style Model**<sup>39</sup> is intended to be adult-specific in that it accords a key role to accumulated experience as well as to mature development toward an integrated and relativistic sense of self. The model and its associated learning style measurement tool has been adopted in a host of research studies.<sup>40</sup> Kolb’s model postulates a learning cycle (i.e., a nonlinear view of learning) that includes four processes (feeling, watching, thinking, doing) and preferences for one or another of these processes define four categories of learning styles.

1. Divergers favor concrete experience and reflective observation.
2. Assimilators favor reflective observation and abstract conceptualization.
3. Convergers favor abstract conceptualization and active experimentation.
4. Accommodators favor active experimentation and concrete experience.

---

34 Gardner, Howard (1993) *Frames of Mind: The theory of multiple intelligences*, 2nd ed. New York: Basic Books.

35 Kallenbach, S., & Viens, J. (2004). Open to interpretation: Multiple intelligences theory in adult literacy education. *Teachers College Record*, 106, 58–66.

36 Honigsfeld, A., & Dunn, R. (2006). Learning style characteristics of adult learners. *Delta Kappa Gamma Bulletin*, 72:2, 14–17, 31.

37 Dunn, K., & Dunn, R. Dispelling Outmoded Beliefs about Student Learning. *Educational Leadership*, 44:6, 55–62.

38 Hill, L. H. (2001). The brain and consciousness: Sources for information for understanding adult learning. In S.B. Merriam (Ed.), *New update on adult learning theories*. New Directions for Adult and Continuing Education, 89. San Francisco, Jossey-Bass.

39 Kolb, D. A. (1984), *Experiential learning: Experience as a source of learning and development*. Englewood Cliffs, NJ: Prentice-Hall.

40 Willcoxson, L., & Prosser, M. (1996), Kolb’s Learning Style Inventory (1985): Review and further study of validity and reliability, *British Journal of Educational Psychology*, 66, 251–61.

A great many other models and instruments for understanding adult learning styles are available.<sup>41</sup> For example, some researchers treat the ubiquitous Myers-Briggs Types, usually regarded as a personality typology, as a surrogate for an index of learning styles preference.<sup>42,43</sup>

## Transformative Learning

Many adult educators and researchers have chafed against paradigms of adult learning that they felt to be unduly oriented toward economic productivity, or which failed to give sufficient attention to sociopolitical issues of individual and group emancipation.<sup>44</sup> Much theory and practice in this vein draws upon the work of Brazilian literacy educator **Paulo Freire**.<sup>45,46</sup> Freire popularized the notion of **critical pedagogy**, pointing out that education is never a politically neutral process of merely “banking” knowledge in the minds of learners. Oppressed people, according to Freire, are enmeshed in a “culture of silence.” They can achieve “conscientization,” however, through dialogue and co-learning with their teachers. Through studying the language of power and by other means, learners can eventually achieve awareness of the systems of power in their society.

**Learner reflection** is central to critical pedagogy.<sup>47</sup> While reflective learning can mean many things, it is often linked to the notion of a **reflective practitioner**.<sup>48</sup> A reflective practitioner is one who experiences awe, surprise, and curiosity about her experiences, rather than simply focusing on technique. One common method for enhancing reflectivity among learners is the use of learning portfolios, which often explicitly require a reflective essay.<sup>49,50</sup>

The goal of critical consciousness and reflection is to help learners not merely accumulate quantities of information, but rather to help learners transform themselves. A considerable body of research pertains to transformational processes in adult education.<sup>51,52</sup> A leading thinker on this topic is Mezirow,<sup>53</sup> who sees adult learning as an opportunity to challenge three kinds of **distortions** that may have accrued in earlier education:

1. Epistemic distortions about the nature and use of knowledge
2. Sociocultural distortions about power and social relations
3. Psychological distortions that lead to fear and anxiety in the individual

- 
- 41 Hall, E., & Moseley, J. (2005). Is there a role for learning styles in personalised education and training? *International Journal of Lifelong Education*, 24, 243–255.
- 42 Mupinga, D. M., Nora, R. T., & Yaw, D. C. The learning styles, expectations, and needs of online students. *College Teaching*, 54, 185–189.
- 43 Filbeck, G., & Webb, S. (2000). Executive MBA education: Using learning styles for successful teaching strategies. *Financial Practice and Education*, 10, 205–215.
- 44 Tisdell, E. J. (1998). Poststructuralist feminist pedagogies: The possibilities and limitations of a feminist emancipatory adult learning theory and practice. *Adult Education Quarterly*, 48, 139–156.
- 45 Freire, P. (1970). *Pedagogy of the oppressed*. NY: Continuum Publishing.
- 46 Shor, I. (1992). *Empowering education*. Chicago: University of Chicago Press.
- 47 Brookfield, S. D. (2000). The concept of critically reflective practice. In A.L. Wilson and E.R. Hayes (Eds.), *Handbook of Adult and Continuing Education*, 33–49. San Francisco: Jossey-Bass.
- 48 Schon, D. (1987). *Educating the reflective practitioner: Toward a new design for teaching and learning in the professions*. San Francisco: Jossey-Bass.
- 49 Hurst, B., Wilson C., & Cramer, G. (1998). Professional teaching portfolios. *Phi Delta Kappan*, 79:8, 578–82.
- 50 Stansberry, S. L., & Kymes, A. D. (2007) Transformative learning through “Teaching With Technology” electronic portfolios. *Journal of Adolescent and Adult Literacy*, 50, 488–496.
- 51 Taylor, E. (1997). Building upon the theoretical debate: A critical review of the empirical studies of Mezirow’s transformative learning theory. *Adult Education Quarterly*, 48, 34–59.
- 52 Baumgartner, L. M. (2001). An Update on Transformational Learning. *New Directions for Adult and Continuing Education*, 89, 15–25.
- 53 Mezirow, J. and Associates (1991). *Fostering critical reflection in adulthood: A Guide to transformative and emancipatory learning*. San Francisco: Jossey-Bass.

Mezirow’s theory posits that these distortions can be overcome through a process of **perspective transformation**. Perspective transformation, which is regarded as the central task of adult learning, consists of a ten-stage sequence that should be considered a dynamic process rather than a rote prescription that can be taught:<sup>54</sup>

1. Experiencing a dilemma that upsets one’s sense of order
2. Self examination
3. Critical assessment of one’s role assumptions and resulting sense of alienation from the status quo
4. Sharing one’s discontent with a group or community of interest
5. Exploring options for new roles and actions
6. Planning a program for personal change
7. Acquiring knowledge needed to implement change
8. Experimenting and testing new roles and behaviors
9. Gaining confidence and competence in those new roles and actions
10. Reintegrating into society on new terms of one’s own choosing

### Technology and Adult Education

Information and communication technology (ICT) enjoys an ever-expanding role in education and training in diverse settings.<sup>55</sup> The seeming constant presence of ICT in instruction—including not only computer- and Internet-assisted learning but now also the use of video games and mobile telephones<sup>56</sup>—is belied, however, by the phenomenon known as **the digital divide**. The digital divide betokens differential access to ICT. While the digital divide is usually defined in terms of socioeconomic status, ethnicity, gender, or nationality,<sup>57</sup> age is also a factor. Adults typically have less access and require more support in technology use than do younger users.<sup>58</sup> When age is combined with minority status, low income, and low literacy, adult utilization of the Internet plummets.<sup>59</sup> Bridging the digital divide for adult learners is not merely a matter of making computers physically accessible (though accessibility is important). Even when community technology centers put computer access within physical reach of adult learners, many individuals are deterred because they fail to see the relevance of ICT to their lives, because they harbor anxieties about learning technology, or because their self-concepts are incompatible with computer usage.<sup>60</sup>

Knowledge workers are edging out production and service workers as the mainspring of the industrialized nations’ workforces.<sup>61</sup> For that reason, and because so many adult learners lack computer literacy, and because the rate of change in the ICT knowledge-base is so rapid even for those who are competent knowledge workers, an important component of adult education is **technology as curriculum**.<sup>62</sup> That is, many adult learners are immersed in acquiring information technology skills.

54 Mezirow, J. (1995). Transformation theory of adult learning. In M.R. Welton (Ed.), *In defense of the lifeworld*, 39–70. Albany, NY: SUNY Press.

55 Reiser, R., & Dempsey, J. (Eds.) (2006). *Trends and issues in instructional design and technology*, 2nd ed. London: Pearson.

56 2006 Innovators (2006, December). *T.H.E. Journal*, 33:17, 14–27.

57 Clark, C., & Gorski, P. (2001). Multicultural education and the digital divide: Focus on race, language, socioeconomic class, sex, and disability. *Multicultural Perspectives*, 3:3, 39–44.

58 Lam, J. C. Y., & Lee, M. K. O. (2006). Digital inclusiveness: Longitudinal study of Internet adoption by older adults. *Journal of Management Information Systems*, 22, 177–206.

59 Norris, D. T., & Conceição, S. (2004). Narrowing the digital divide in low-income, urban communities. *New Directions for Adult and Continuing Education*, 101, 69–81.

60 Stanley, L. D. (2003). Psychosocial barriers to computer literacy. *Information Society*, 19, 407–507.

61 Gordon, E. E. (1997). The new knowledge worker. *Adult Learning*, 8:4, 14–17.

62 Kasworm, C. & Londoner, C. (2000). Adult learning and technology. In B. Hayes and A. Wilson (Eds.), *Handbook of Adult and Continuing Education*, 224–241. San Francisco: Jossey-Bass.



Recent research suggests that there is often a disjuncture between technology training curricula that intend to impart *competence* in some linear fashion and the nonlinear methods that many technology end users actually employ to achieve *capability*.<sup>63</sup> That is, individuals who are experienced and self-efficacious learners of technology often experiment, play, learn from their failures, try out alternative paths, and thereby become capable of working with a wide variety of hardware and software. Successful technology users often learn a piece of software just a bit at a time, on a need-to-know basis. And they often consult with other similarly struggling peers or with mentors to share short cuts and efficiencies they have discovered.<sup>64</sup> Typical computer and technology training programs, to the contrary, are most often linear and directive.

Complementing questions of technology as curriculum are issues relating to **technology as a delivery system for instruction**. In fact, continuing adult education has long relied on technology—radio and television classes, and films—to efficiently reach large numbers of learners as well as to reach geographically isolated learners.<sup>65</sup> Currently, technology-mediated adult learning situations range from highly specialized one-time teleconferences originating at distal sites<sup>66</sup> to use of computer-assisted learning modules available on demand in adult basic education and literacy classrooms.<sup>67</sup> Head-to-head comparisons of learning outcomes and learner attitudes comparing technology-mediated distance education and traditional classroom instruction famously result in either very small or zero advantage for one format over the other.<sup>68,69</sup> One factor contributing to the lack of clear findings in this body of research may be poor experimental methods.<sup>70</sup> Another explanation may be that distance education is very effective for some students—those with high autonomy and internal locus of control, for example—but not for others.<sup>71</sup> A recent trend is toward **hybrid classes**. Some are traditional face-to-face classes that incorporate periodic asynchronous email conferences, or synchronous chat-room meetings, or online collaborations; some are distance classes that incorporate occasional on-site whole group meetings.<sup>72</sup>

The trend toward hybrid classes highlights the finding that even the most technologically mediated, self-directed learning is enhanced by peer input and collaboration.<sup>73</sup> Thus, the formation of **online learning communities** has engendered a great deal of research interest.<sup>74</sup> Technological **tools for maintaining online communities** include:<sup>75</sup>

- Synchronous tools such as chat rooms or instant messaging
- Asynchronous tools such as discussion boards or email lists

63 Phelps, R., Hase, S., & Ellis, A. (2005). Find more like this competency, capability, complexity and computers: Exploring a new model for conceptualising end-user computer education. *British Journal of Educational Technology*, 36, 67–84.

64 Kasworm, C. & Londoner, C. (2000). Adult Learning and Technology. In B. Hayes and A. Wilson (Eds.), *Handbook of Adult and Continuing Education*, 227. San Francisco: Jossey-Bass.

65 Moore, M. G. (2003). From *Chautauqua to virtual university: A century of distance education in the United States*. Information Series 393. Columbus, OH: Ohio State University Center on Education and Training for Employment.

66 Harris, S. B., Leiter, L. A., Webster-Bogaert, S., Van, D.M., & O'Neill, C. (2005). Teleconferenced educational detailing: Diabetes education for primary care physicians. *Journal of Continuing Education in the Health Professions*, 25:2, 87–97.

67 Berger, J. I. (2001). Effectiveness of computers in ALBE classrooms: An analytic review of the literature. *Adult Basic Education*, 11, 162–183.

68 Lou, Y., Bernard, R., & Abrami, P. (2006). Media and pedagogy in undergraduate distance education: A theory-based meta-analysis of empirical literature. *Educational Technology Research & Development*, 54, 141–176.

69 Allen, M., Bourhis, J., Burrell, N., & Mabry, E. (2002). Comparing student satisfaction with distance education to traditional classrooms in higher education: A meta-analysis. *American Journal of Distance Education*, 16:2, 83–98.

70 Bernard, R. M., Abrami, P. C., Yiping L., & Borokhovski, E. (2004). A methodological morass? How we can improve quantitative research in distance education. *Distance Education*, 25:2, 175–198.

71 Eastmond, D. (1995). *Alone but together: Adult distance education through computer conferencing*. Creskill, NJ: Hampton Press.

72 DeNeui, D. L., & Dodge, T. L. (2006). Asynchronous learning networks and student outcomes: The utility of online learning components in hybrid courses. *Journal of Instructional Psychology*, 33:4, 256–259.

73 Salmon, G. (2000). *E-moderating: The key to teaching and learning online*. London: Kogan-Page.

74 Brook, C., & Oliver, R. (2003). Online learning communities: Investigating a design framework. *Australian Journal of Educational Technology*, 19, 139–160.

75 Kaplan, S. (2002). *Building communities: Strategies for collaborative learning*. [Accessed June 22, 2007 at <http://www.icohere.com/CollaborativeLearning.htm>.]

- Content integration tools such as blogs or courseware
- Document management tools such as collaborative writing environments with version tracking

But the tools themselves are only a minor part of what it takes to build an online learning community. One model for **online co-construction of knowledge** postulates five sequenced steps which must be undertaken collaboratively:<sup>76</sup>

1. Sharing and comparing information among members of the learning community
2. Unearthing dissonance or inconsistency among ideas
3. Negotiating meaning among community members
4. Testing and modification of a co-constructed conclusion or finding
5. Agreement statements and the application of newly constructed meaning

Finally, the **social dimension** of online learning communities has been found to contribute to learning outcomes as well as to affective outcomes.<sup>77</sup> A review of literature identifies the following techniques for fostering that social dimension among adult online learners:<sup>78</sup>

- Welcome members individually to the learning community
- Whenever members post, acknowledge their contributions
- Establish member profiles to which everyone can refer
- Establish a unique and positive identity for the community
- Set guidelines for communication, e.g., limitations on topics, length of posting, or managing conflict
- Allow participants to adopt roles with which they are comfortable
- Develop a common symbol system including in-group jargon, acronyms, and the like
- Develop and encourage rituals that reinforce community coherence
- Cultivate a social dimension in addition to the task dimension of interaction

76 Gunawardena, C. N., Lowe, C. A. & Anderson, T. (1997). Analysis of a global online debate and the development of an interaction analysis model for examining social construction of knowledge in computer conferencing. *Journal of Educational Computing Research*, 17, 397–431.

77 Xiaojing L., Magjuka, R., Bonk, C. J., & Seung-hee L. (2007). Does sense of community matter? *Quarterly Review of Distance Education*, 8, 9–24.

78 Brook, C., & Oliver, R. (2003). Online learning communities: Investigating a design framework. *Australian Journal of Educational Technology*, 19, 139–160.





## CommGAP

The **Communication for Governance and Accountability Program (CommGAP)**, a global program at the World Bank, seeks to confront the challenges inherent in the political economy of development. By applying innovative communication approaches that improve the quality of the public sphere – by amplifying citizen voice; promoting free, independent, and plural media systems; and helping government institutions communicate better with their citizens – the program aims to demonstrate the power of communication principles, processes and structures in promoting good and accountable governance, and hence better development results.

CommGAP is funded through a multi-donor trust fund. The founding donor of this trust fund is the UK's Department for International Development (DFID).

## Communication for Governance & Accountability Program (CommGAP)

### External Affairs Vice Presidency

The World Bank  
1818 H Street, NW, MSN U11-1102  
Washington DC, 20433

**P** 202.458.7955   **F** 202.522.2654   **E** [commgap@worldbank.org](mailto:commgap@worldbank.org)

**WEB:** [www.worldbank.org/commgap](http://www.worldbank.org/commgap)   **BLOG:** [blogs.worldbank.org/publicsphere](http://blogs.worldbank.org/publicsphere)