

Postscript: An Agenda for Research and Policy

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Introduction

Despite the best attempts of numerous scholars to conceptualize adult education and training as a distinctive and separate theoretical or practical domain, the field shows a remarkable resilience and resistance to this effort. As entry number (3) in this volume on 'Adult Education: Concepts and Principles' by Titmus demonstrates, adult education ideas and practices cannot easily be compressed into a single definition or unified framework of analysis. As used in this encyclopedia, the term 'adult education' encompasses a variety of settings for practice, including that usually described as 'training'. 'Adult education and training' is a much more cumbersome phrase than 'adult education', so the latter is used throughout this postscript to encompass a breadth of activities including those of human resource development and training. It is worth noting, however, that the juxtaposition of adult education and training as reflected in the title of this encyclopedia is itself a contentious issue. To some adult educators the world of training and human resource development is governed wholly by corporate priorities and capitalist ideology and therefore directly at odds with democratic traditions in the field. Conversely, many working in the world of training either see themselves as having nothing in common with mainstream adult education, or view the democratic, social activist tradition within the field as irrelevant romanticism. This duality is problematic and cannot easily be reconciled. However, as is argued later in this chapter, it is possible to analyse workplace education and training as a negotiated adult educational process in which is embedded the possibility for critical reflection. As the history of cooperative, worker and labour education demonstrates, the workplace is a setting in which democratic habits can be learned and practised, as well as an important arena for the formation of adult identity. To dismiss all those who see themselves as trainers as beyond the ideological pale is to ignore the efforts of a good many committed, democratic practitioners.

Leaving aside the operational tendency to regard as adult education anything that calls itself by that name, we can see that four initiatives to conceptualize adult education as a field of theory and practice have met with some acceptance, at least judged by discourse within the field. First, there is the argument that adult education represents a distinctive form of practice that is generally not found in educational work with children or adolescents. Andragogy (see entry number (21) by van Gent) or conscientization (see entry number (16) by Evans) are frequently mentioned as candidates for this distinction. Second, there is the attempt to develop a chronological and experiential basis for defining the field (see entry number (70) on 'Experiential

and Open Learning' by Paul). By insisting that because adults have lived longer and have had qualitatively different experiences, it is possible to build a case that adults must be dealt with differently than children and adolescents when it comes to their education. Third, as Heckhausen's entry number (61), Sternberg and McGrane's entry number (62), Schneider's entry number (63), Fales' entry number (64) and Montada's entry number (65) on aspects of lifespan development show, there are efforts to link adult education to developmental psychology and to claim for adult education a distinctive role in the furtherance of predictable developmental transitions. Finally, there is the justification of adult education through its contribution to the realization of democratic forms and processes (as addressed in Griffin's entry number 27 on 'Political Science and Policy Analysis'). All four conceptualizations are compressed and interwoven throughout various entries across the seven sections in this encyclopedia.

Contributions of the Encyclopedia to Building an Agenda for Research and Policy.

Adult Education as Culturally Problematic and Inherently Ideological

A survey of the contrasting conceptualizations of adult education and training leads to the inevitable conclusion that attempts at definition are culturally problematic and inherently ideological. General definitions of adult education and training are culturally problematic in that they cannot avoid reflecting the cultural bias of the definer. Viewing adult education as a process of initiating people into certain roles, or defining adult learners by their adoption of roles (worker, parent, and so on) locks one into an unavoidable cultural specificity. Efforts to define adult education can be analysed as culture wars representing the efforts of different interests to claim what is contested territory. To some, adult education or training exists if people over 25 are gathered together to learn something from a person or persons designated as educator. To others, a process can only be described accurately as adult educational if certain intrinsic features are evident (for example, if curricula, learning activities and evaluative procedures are continuously re-negotiated). The images and examples that enter the literature to illustrate what are considered as adult educational processes (for example, vocational education as against revolutionary transformation, or military training as against peace activism) indicate clearly the cultural interests at stake. Workplace education can be conceptualized as the training of workers to fulfill company functions, or as an oppositional practice through which workers become aware of how their best interests are in direct competition with those of corporate capitalism. So, as Entwistle's entry number 33 on 'Ideologies in Adult Education' makes clear, definitions of adult education are inherently ideological in that they reflect the perspectives, world views and political agendas of the definers. Even denying that one has a perspective, world view or agenda is itself an ideology. Do these cultural and ideological complications render futile any attempt to speak in general terms about adult education? Not necessarily. Or if they do, then all communication across difference is impossible. What *is* important is to make explicit at every turn one's cultural and ideological position.

Given the culturally problematic nature of what counts as adult education, it is almost impossible to satisfy calls for adult education to be a discrete field of theory and

practice. Adult education crosses too many institutional and political terrains for it to be able to claim a piece of the world as its own with any confidence. Invariably, adult educational activities are susceptible to explanation through a multitude of existing frameworks. For example, negotiations or advocacy workshops for shop stewards sponsored by labour unions, vocational training programmes organized by companies, and voluntary community action efforts are all viewed as legitimate manifestations of adult education and training within this encyclopedia. Yet each of these arenas of practice has its own context-specific body of literature (seen in Eiger's entry number (119) on worker and labour education, Niemi's entry number (12) on human resource development and Cunningham's entry number (9) on community education and community development) that often draws from a variety of cross and multi-disciplinary perspectives. There are also professional bodies and associations in these specific areas of practice that organize conferences and sponsor publications, often with little or no representation from mainstream adult education organizations.

Moving Beyond Spurious Distinctions

One important contribution that the preceding chapters in this volume have made is to dispel as spurious some oft quoted distinctions within the field. First, various contributors underscore Tuijnman's point made in his entry number (2) 'Introduction to Section 1', that placing adult education as a polar opposite to childhood or adolescent education is conceptual and empirical nonsense. Hopefully, the appearance of this encyclopedia will result in closer attention being paid to the connections between education and learning across the lifespan. As Tuijnman argues, from now on we can reasonably expect the full text of the 1976 UNESCO Nairobi definition (reproduced on page 2 of this encyclopedia), dealing with adult education's subsumption within the overarching concepts of lifelong education and learning, to be quoted when definitions of adult education are proposed. Second, the oppressive dichotomy between adult education theory and adult educational practice has been rendered irrelevant, as epistemologically and practically untenable. Like it or not, in the praxis that adult educational processes represent, we are all theorists and all practitioners. On the one hand our practice is theoretically informed by our implicit and informal theories about the relationships between learning, teaching and educational process. On the other hand, our theories are grounded in the epistemological and practical tangles and contradictions we seek to explain and resolve as we try to help adults learn. Third, as entry number (20) by Rubenson on disciplinary orientations, entry number (22) by Lancy on anthropology, entry number (23) by Tuijnman on economics, entry number (25) by Poggeler on history, entry number (26) by Lawson on philosophy, entry number (27) by Griffin on political science, entry number (28) by Pieters on psychology, and entry number (29) by Jarvis on sociology demonstrate, there exists ample evidence for the claim that adult education exists at the nexus of intersecting disciplines and intellectual orientations. This encyclopedia marks the end of adult education scholars' attempts to make a unilateral claim for themselves as the gatekeepers and gurus of something that no-one else can understand. Because of the marginal status that academic departments of adult education have had within universities across the world, there has been an understandable tendency for academics in the field to spend a great deal of time telling us why adult education is a distinctive form of theory and practice. There has always been the fear among many adult educators that if they admit to the possibility that useful contributions to understanding adult learning and education can be made

by academics from other fields and disciplines that this negates the reason for their professional existence. After all (the argument goes) if adult educators are not the undisputed experts on something that no-one else understands (that is, on the facilitation of adult learning), how can they justify their jobs, salaries, departments and programmes? The appearance of this volume signifies a new confidence in adult educators' readiness to admit that they need the contributions and perspectives of colleagues in related fields and disciplines if they are ever to understand what are extremely complex psycho-social processes that take place within cultural and political environments.

Building a Distinctively Adult Educational and Training Agenda

In this final entry to the encyclopedia a unifying focus is proposed that might be applied to determining an agenda for research, theory building and policy development in the field. This agenda reflects an ideological orientation that values equally the socio-political analysis embedded in critical theory (see Westwood's entry number 10 on this intellectual tradition) and the illumination of educational process provided by practical theorizing and psychological analysis (see Pieters' entry number (28) on the influence of psychology within adult education). In building an agenda for adult education research and practice, adult educators live by necessity on a point of dialectical tension in which formal and informal theories, and social and individual perspectives, continually intersect. It is mistaken to believe that adult education scholarship and praxis should focus only on the dynamics of teaching-learning transactions. To do so is to encourage a decontextualized, depoliticized view of what these entail. Learning is irredeemably a social as much as a psychological process and adult students, just like adult educators, are in history. What goes on in adult educational interactions must be understood as culturally framed, reflecting all the inequities and contradictions of the wider political world. But neither should adult educational theorizing concern itself exclusively with political economy and the analysis of oppressive social structures. To do this turns adult education scholarship into a specialized unit within the discipline of political economy and sociology. It also risks creating an unnecessary and unbridgeable gap between many who see themselves as practitioners working within their own local contexts, and the discourse among university-based academics.

One of the chief fascinations of adult education as a field lies in the sometimes uneasy co-existence of contradictory political and psychological perspectives. In the work of Paulo Freire (1994) and Myles Horton (1990) we see some of the best examples of an adult educational praxis informed equally by pedagogical understanding and political analysis.

Learning Critical Reflection

One of the best chances to build a discrete and unified agenda for research and policy in the field is to focus on the process of learning across the contexts for practice that is most distinctively adult; that is, the development of critical reflection. Future inquiry in the field could be unified by a common focus on the ways in which critical reflection is learned and taught across adult educational contexts broadly defined. An

important research agenda is represented by the effort to study the barriers to and complexities of this process, its culturally problematic nature, the intersections between critical reflection and the variables of ethnicity, class and gender, and the connections between critical reflection and democratic process. Work on transformative learning and transformative research in the first and third worlds has synthesized a number of psychological and cultural perspectives on the development of critical reflection among all kinds of peoples. It is possible to argue that the unique function of adult learning is to bring into critical consciousness the assumptions and perspectives about knowledge and social processes learned uncritically in childhood and adolescence. In cognitive and developmental psychology a group of theorists and researchers has explored the intellectual activities of adults that seem to transcend Piaget's final stage of formal operations. A host of constructs have been proposed to describe the development of critical reflection including those of epistemic cognition, embedded logic, dialectical thinking, practical intelligence, reflective judgment, constructed knowing, encapsulated knowing, epistemic thinking, situated cognition, and learning to learn. The core idea uniting these diverse formulations is that adults across cultures engage in a form of situated reasoning that they use to interpret their experiences and guide their actions. This reasoning does not necessarily follow the rules of formal logic associated with Western, modernist forms of thought. Instead, it is reasoning that is attentive to context and responsive to idiosyncrasy. Through situated reasoning adults increasingly show a capacity for cognitive flexibility whether this be about how to interpret the effects of weather changes on crops, what being a good parent or tribal member involves, or how to make employment decisions (if this possibility exists). They adjust to the nuances of situations in which they find themselves by evolving theories of action that change from time to time and place to place. As adults make these adjustments they have the possibility (not always acted upon) of developing a self-conscious awareness of why they think in the ways they do and of how context alters their forms of reasoning. They become able to identify the implicit and explicit assumptions that inform thought and action, to understand how these assumptions are culturally formed and transmitted, to investigate the accuracy and validity of these assumptions, and to take alternative perspectives on the thoughts and actions that these assumptions inform. It is important to stress that this research agenda is one of possibility, not actuality. Across the world people live lives in which the possibility for critical reflection remains unrealised, either through political oppression, apathy, poverty, or educational neglect.

Given the popularity in adult educational circles of the concepts of reflection and reflective practice, and the danger of their being evacuated of all meaning, something needs to be said to distinguish critical reflection from reflection. Reflection is critical when it has four distinct concerns. The first is the concern to illuminate how the variable of power is manifest within, and influences, all adult educational interactions. This includes processes in which there power *with* as well as power *over* learners. The second is the concern to focus on the intended and unintended repressive dimensions to adult educational ideologies and practices. By repressive dimensions is meant the ways in which adult educational practices and ideologies impede rather than enhance the realization of democratic forms and values. The third concern of critical reflection is to help people become aware of the ways in which assumptions and practices that seem to be for adult educators' and learners' own good actually work against their own long term best interests. For example, reforms such as a government's decision to centralize the generation and delivery of curricula or evaluative procedures to ensure

that the same level of quality exists in all adult educational interactions across the country are often embraced because they seem to make a educator's life easier and to have adult students' interests at heart. But this apparent short term convenience can obscure the undemocratic nature and consequences of these reforms. It can mask the fact that they deny the opportunity for learners and educators to evolve activities together that are situated in their own local needs and concerns. The fourth concern of critical reflection is to study the reflective process itself. Critical reflection regards reflection as a problematic activity in which is embedded the possibility for self-deception and for authoritarian practice. A critically reflective adult educator realizes that critical reflection itself constitutes an ideology that has sprung from a particular group, time and place. It is not viewed as a universal form of consciousness or a divinely ordained intellectual process, but as an ideological formation representing a certain set of interests. Although they have confidence in the validity of critical reflection, and are able to articulate why they regard it as important, critically reflective adult educators are always inquiring into its potential for misuse and abuse.

Adult Education as a Negotiated Process

Another unifying focus of an agenda for research and practice within the field might be represented by the investigation of the ways in which distinctively adult educational processes exist within, or are impeded by, the contexts for practice in which adults are gathered together to learn. In other words, any example of practice or any policy initiative could be analyzed for the extent to which certain distinctive processes were observable within the practice or suggested by the policy. This would make it possible to take an adult educational perspective on virtually any form of activity in which adults were gathered together to learn. Approached in this way, vocational training becomes as much an adult educational possibility as community action.

Of course, the difficult part in all this is deciding what exactly constitutes a distinctively adult educational process. To do this a good place to start is with a deceptively simple phrase - "treating people as adults" - that is rich with educational implications across cultures and levels of psychological, political or economic development. When educators treat people as adults they accord them a degree of respect that they would like to receive in return. Treating people as adults when they are in the role of learners means negotiating and renegotiating with them the flow and form of the educational process. This is done in a way that respects difference and that assumes that all involved in the negotiation have (as much as is humanly possible) full access to all significant information. This negotiation works to ensure that each participant has as undistorted an understanding of others' contributions as is reasonable to expect given the inevitable complexities of human communication across cultures and structures of understanding. The conversations that comprise this process of negotiation both frame how the adult educational process happens and shape the consequences that learning has for educators and students' actions in the world. This view of adult educational process as a critically reflective negotiation between moral equals with unhampered access to necessary knowledge informs adult educational traditions that exist within both hemispheres and within the first and third worlds. We can see this tradition in the stream of work concerned with andragogy that arose within Germany, re-emerged in Yugoslavia, was transplanted to the U.S.A. and underwent a critical reformulation in England. We can see these ideas, too, in Freire's

ideas of a problem-posing, conscientizing pedagogy of hope and liberation that have had such an influence beyond his native Brazil by inspiring work with tribal and indigenous peoples across the third world, as well as with oppressed groups within the first world. Recent attempts to use Jurgen Habermas' concepts of the ideal speech situation, communicative action and inter-subjective understanding as the organizing vision for adult educational practice also fall within this tradition. The idea that adult education processes must further communicative virtues and the generation of dialogue across difference, and that critical conversation for adults focuses on a collaborative probing into experience, provides yet another interpretation of this view of adult educational process.

An Agenda for Research and Practice

In this section the distinctive foci already outlined as inherently adult educational are applied to three areas of research and policy development each of which require an adult educational contribution.

Combatting Sexism and Racism

Understanding and combatting racist and sexist thoughts and actions is perhaps the most pressing collective project of our time. An adult educational contribution to this endeavour would illuminate the ways in which racist and sexist stereotypes were learned and re-learned across the lifespan and the ways in which a critical awareness of this learning could be developed by adults. It would analyze how discriminatory practices were embedded in structural arrangements and in conversational forms and it would study how people were able to detach themselves from these forms so that they could stand outside them and reflect back critically on how they came to take them for granted. An adult educational contribution to this project would educate for thinking beyond tribal loyalties, aggregates or collectivities such as 'black', 'hispanic', 'asian' or 'white' and it would illuminate how the dominant anglo culture could be included in considerations of diversity. It would also try to establish the conditions under which education against the uncritical reproduction of racist and sexist attitudes could best take place. It would establish what adult educators could do to foster a conversation about race and gender that does not drive people further into entrenched positions. It would investigate how adult educators could build on an understanding of the ways in which racism and sexism are learned and confirmed in adult life to set up an educational program to combat this. Since one of adult education's principle concerns over the years has been helping people to come to a critical understanding of their experiences, including an awareness of how these can be interpreted in distorted and constraining ways, it seems certain that adult educators could add a distinctive voice to the debate among activists and policy makers.

Treating people as adults where education against racism and sexism is concerned means that they should not be approached with condescension, talked down to, infantilised, or demeaned. In particular, it requires a recognition and valuing of people's experiences. Of all the ideas that can be identified as quintessentially adult educational, the emphasis on honoring, while at the same time critically analysing, people's experiences has the strongest intellectual lineage. Common to the contrasting and sometimes contradictory radical and humanistic impulses that one finds in the

field, is the idea that adult education's unique purpose is to help people understand and learn from their life experience. However, while honoring and celebrating experience is important, it is not, in and of itself, enough. What makes an activity truly educational is when we undertake a critical analysis of experience. The adult education tradition stresses the tactical necessity of starting with people's experiences of racism and sexism, but it emphasizes equally the critical analysis and reformulation of that experience. Writers in this tradition stress that this critical inquiry can only happen properly in groups. The crucibles for good analysis of experience are circles of learners engaged in mutually respectful yet critically rigorous conversation. Adult educators have a distinctive contribution to advising on how these circles can be encouraged, the settings in which they might be situated, and the ways in which democratic ground rules might be evolved for them. Some important efforts have been made in this area but much more needs to be done.

Developing Media Literacy

The explosion in communications and information technologies in the post-war era has certainly had profound effects on education. More importantly, it has also changed fundamentally how community is conceived and constructed and the ways in which political processes take place. We live in a global village linked by CNN with all the strife, mutual misunderstanding and backbiting that village life entails. As is apparent from Bates' entry number (84) and Roth's entry number (85) on educational technology within distance education and vocational education respectively, a great deal of work has been done on how new technologies can be used to create alternative delivery systems. But the assumptions underlying the concept of education as a commodity to be delivered are rarely made explicit, let alone challenged. An adult educational agenda for developing media literacy would make the encouragement of critical questioning of the use and control of media of communication a central focus. Several things can be done in this regard. Adult education for media literacy can explore the ways in which people learn and re-learn attitudes and behaviors from mass media of communication, particularly television. Generalizations and task force reports abound about the linkages between television viewing and violence among young people. However, the ways in which adults learn from television, and the ways in which they decode T.V. images and words to reinforce their existing perceptions is rarely studied. Yet, we know that already learned political loyalties and racist ideas about the characteristics of different tribal and ethnic groups are confirmed by television viewing, even when the content of T.V. programmes challenges these same loyalties and stereotypes. What learning process is happening that causes adults to ascribe meanings to T.V. images and sounds that directly contradict the meanings intended by their producers ? Understanding this is a crucial adult educational task.

We can also expect an adult educational contribution to efforts that assist adults to take a critical perspective on media. Setting up groups that study how T.V. documentaries, dramas and news broadcasts encode dominant perspectives and marginalize or ignore alternative interpretations is an important adult educational activity. Initiating conversations about how T.V. news is a constructed reality or creating 'ad-watch' campaigns that monitor lies and distortions in political advertising, is a technological version of adult education's classic mission to encourage a critically alert citizenry. Fighting political demagogues who use mass media of communication to suggest that complex social problems can be dealt with by scapegoating particular

groups is consistent with adult education's concern to create access to all forms of significant information. Helping people recognize the epistemological distortions inherent in T.V. dramas or situation comedies (for example, that with a joke and a hug all problems within families can be solved within 30 minutes) is something that adult educators who see themselves as parent educators can readily understand. In overtly totalitarian societies, the mandate for adult educators to foster critical reflection on the use of T.V. for the state's propagandizing is clear. In apparently open democracies adult educators must find ways to combat the perception that media images and words are somehow objective, context free purveyors of messages. They can work to show how media conglomerates are corporate business organizations concerned to represent and defend certain financial interests. More subtly, adult education is faced with the challenge of identifying and challenging the overall epistemic distortion that life should somehow resemble T.V. with neat, happy resolutions and no loose ends. Along with the phenomenal increase in popularity of T.V. shows that 're-enact' real life events without making explicit the fact of re-enactment, there comes a need for adult education to mount a vigorous programme of media literacy that heightens the awareness of fictionalised, constructed news.

Learning Democracy

Across hemispheres and histories the contribution that adult education can make to the learning and building of democracy is irrefutable. From its beginnings the field has seen itself as having a social mission to provide civic laboratories in which democratic behaviors - with all their contradictions and compromises - are learned and practiced. As the twenty first century approaches this mission is as vital as it has ever been, though its context has changed. Throughout this century adult education has been invoked as a democratic force to counter various forms of fascism and totalitarianism. In the post-cold war era, however, the democratic task is to counter the ethnic fragmentations and tribal hostilities that threaten peace. In Eastern Europe, Asia and Africa, civil wars involving whole populations have erupted as the Cold War between the Soviet Union and the U.S.A. receded. Although adult education cannot disarm militias, alter concentrations of economic power, or prevent genocide, it plays a crucial role in rebuilding community after the civil populace has acted to break corruption. An adult educational contribution to learning democracy would study how democratic attitudes and behaviors were learned under a variety of conditions. This democratic agenda must be built in a world in which authoritarian socialism has lost its power and in which postmodernism would have us believe that universal prescriptions are out of place. It must recognize that a diversity of cultural traditions and political conditions inevitably alter how ideas of democracy are realized. But the ascent of postmodernism does not mean that the democratic dream is dead. If, as Freire maintains (1994), "hope, as an ontological need, demands an anchoring in practice" (p. 9) then understanding how adult education nurtures democratic practice is a project that can unite adult educators across contexts and cultures.

An Agenda for Policy Development

Policy questions invariably focus on the ways in which scarce resources are used to support educational processes. In societies in which adult education and training are seen as conceptually and practically separate from compulsory schooling, these are

always going to be of only marginal concern. Even allowing for the amounts that private companies spend on employee training, the amounts spent by governments across the world on compulsory schooling still represent (other than the development of militia) the most massive human investment in history. Yet this investment can scarcely be said to have reaped impressive dividends in terms of producing a citizenry with the kinds of advanced information management skills that seem so important in first world economies. In this section three areas for policy development in adult education and training are examined: promoting a greater acceptance of the concepts and practices of lifelong learning and education, developing workplace literacy, and encouraging non-traditional, alternative models of adult educational and training practice.

Lifelong Learning and Education

Policy makers in the first and third world are still organizing the public provision of education according to a model drawn from the first days of the industrial revolution. This front-end model of educational provision rests on the now discredited assumption that it is possible to inculcate

in children and adolescents a set of skills that is sufficiently stable and replicable that it will serve them through a lifetime's adult employment. Despite the obvious absurdity of this idea, governments still have great difficulty making the shift to reconceive and refinance educational provision as a lifelong necessity. A first policy item for adult educators must be to promote the idea of lifelong education as a compulsory right of adult citizenship. Conceiving learning and education as lifelong processes removes from schools the impossible necessity of equipping children for all the personal, economic and political vicissitudes of life in a rapidly changing world. Instead, schools become the setting in which foundational skills of communication, critical thought, calculation and cultural understanding are learned. General education, forms of specific inquiry and training for employment become the concern of colleges, universities, technical institutes and companies. This means that the focus in the financing of educational opportunities shifts to supporting the educational dimensions of agencies in which people live and learn. A massive proportion of the educational budget could conceivably be shifted from financing compulsory schooling to assisting community organizations and employers to provide educational opportunities across the lifespan. If government monies are to be used for educational activities sponsored by non-governmental agencies, this obviously has implications for how such agencies are to be monitored and evaluated. Within the workplace this requires a fundamental reconceptualization of what constitutes labour. A central aspect of work now becomes the encouragement and animation of learning in others, with peer teaching named as a crucial worker behavior across categories of employment.

If lifelong learning and education become the organizing ideas for post-secondary education then we are likely to see a shift in how universities and colleges work. The pre-industrial model of college as a residential experience of several years duration for those young adults who have scored well on some kind of national test becomes untenable. Instead, universities are likely to see by far the greater proportion of their courses and programmes being offered in part-time and modular units. There will be a considerable expansion of non-credit programming and the portfolio appraisal office

(the academic unit that considers the educational value of prior life experiences that adult students bring to their higher learning) will become the busiest and most important administrative office on campus. Schools, too, will be open all day, all year, operating as community education centres hosting a mix of vocational and avocational programmes. Schoolteachers will no longer be trained as specialists concerned exclusively with learning in childhood or adolescence. Instead, all teacher education programmes will need to be reconceived as lifelong educator programmes. Even teachers concerned solely with education of children will have to be thoroughly cognisant of how learning happens across the lifespan. Conversely, no university, college or adult educator will be able to teach until she or he is familiar with the cultural, psychological and pedagogic conditions that foster learning in children. Finally, curricular themes (such as learning to learn or critical literacy) are likely to emerge across the lifespan, based on the increased acceptance of the idea that intellectual, ethical and moral development can only be understood as lifespan projects.

Technological Literacy

We live in a post-industrial world. Primarily agrarian societies that look enviously towards the economic riches of the developed north face the prospect of skipping the industrial revolution altogether. Less developed societies struggling to meet their populace's needs for employment, housing and food find the possibility of competing on equal terms with the developed north hampered by their lack of information technology. In some adult education and training circles the idea that computer technology represents a unique opportunity for democratising learning has become something of an uncritically accepted given. From basic literacy and numeracy education to the pursuit of advanced college degrees, computer technology appears to hold the promise of providing educational opportunities for all those who previously have been prevented from participating in adult education by the constraints of place or time. Yet, despite the resources devoted by governments across the world to adapting computer technology for purposes of mass adult instruction, policy development in this area has not resolved contentious issues of access and equity. Existing divisions between educationally advantaged and disadvantaged groups within societies, and between the first and third worlds, are likely to be gravely exacerbated as technology advances. Children who are borne into homes where computer terminals are as familiar as T.V.'s or telephones have an inbuilt advantage when competing as adolescents for entry to an increasingly computerised higher education system, or as adults for jobs along the information super highway. This is a good example of how policy related to adult education and training must be coordinated with policy for children and adolescents at earlier stages in the lifespan. Without the development of some universal computer literacy in schools - which itself requires children to have equal access to technological hardware and instruction irrespective of their class, ethnicity, gender or area of residence - there is a real danger of an informational underclass developing that parallels the economic underclass.

Alternative and Non-Traditional Models of Adult Education Practice

The pace of technological change has, as Carnoy's entry number (47) on this theme shows, many implications for the organization of adult education and training. Advocates for educational democratization have long argued for greater attention to

innovative ways of doing adult education and training. In particular, forms of non-contiguous educational processes (those in which teaching and learning are essentially separate acts) have received a great deal of attention in the last two decades, as entry number 70 by Paul, entry number (112) by De Wolf and entry number (115) by Holmberg all show. Given the labour intensive costs of financing adult education and training demonstrated by Wurzburg in entry number (50) and Tsang in entry number (51), policy makers across the developed and developing world have become more and more enamoured of educational models that engage large numbers of students scattered over wide areas while reducing the costs associated with more labour intensive forms of practice. In the immediate and medium term future we can expect a worldwide explosion of alternative forms of provision as the hegemony of the fixed place, residential form of adult education and training weakens. Chief among these are the granting of credit for adult students' life experiences, experiments with cohort styles of admission, the development of peer learning and peer teaching strategies, the wholesale acceptance of modular and multi-disciplinary forms of education and training, and the introduction of highly individualized self-correcting approaches to evaluation and measurement, including the submission of learning portfolios. In the face of these developments policy makers will need to initiate a conversation on the ways in which adult educational and training roles will be conceived, practised and rewarded in the twenty first century.

Conclusion

This encyclopedia marks the end of the study of adult education and training as a wholly separate, discrete domain of theory and practice. From now on adult education will be understood within the context of lifelong education, and adult learning will be understood within the context of lifelong learning. The worlds of the industrial workplace, of organizational development, and of human resource development will be recognized as legitimate objects of adult educational inquiry, with the focus of such inquiry being on the extent to which critical reflection is fostered or impeded within these contexts, and the degree to which these contexts are themselves negotiated.

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