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ABSTRACT

This paper presents four principles to be followed in the development of experience-based curriculum. The principles have been extrapolated from John Dewey's theory of experience ("Experience and Education," 1938). They are discussed in this paper in terms of several existing curriculum materials for elementary and secondary education. The first principle is that the selection of learning experiences should be based upon the continuity and interaction of the learner's past, present, and future experiences. The second principle states that sequencing of curriculum should be based upon the development of the learner's experiential continuum. The experiential continuum is the cumulative result of the learner using the knowledge gained from one experience to understand more fully the meaning of his next experience. The third principle is that action and reflection should be used in reviewing learning experiences. Examples of action are field-experience projects; examples of reflection are class discussion and role play. The fourth principle is that subject matter should be discovered by the learner through a process of inquiry as he explores the significance of each learning experience. (Author/AV)

BASIC PRINCIPLES FOR DESIGNING EXPERIENCE-BASED CURRICULA

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In 1965, Richard C. Phillips reviewed the history of the term "experience" in curriculum building.[1] It was evident from his research that the concept of experience had received a diverse usage in the design of curriculum and instruction. The various experienced-based designs and instructional materials that emerged from these conceptions illustrated this confused array of interpretations and indicated the need for a guiding set of principles by which experience-based curricula could be more systematically developed. Unfortunately, only a handful of efforts at clarification have been attempted since 1965.

Most often, experience in curriculum has been equated with activity and designated as "learning by doing." The curriculum or instructional materials are then designed to present as many interesting experiences as possible to the learner under the assumption that this will heighten interest and motivation and result in more meaningful learning. While there may be some logical and empirical justification for this approach, it represents only a portion of what a substantive experience-based design should contain.

Based upon our research into the role of experience in education, we determined that the bulk of curricula labeled as experience-based or experiential lacked at least one of the following necessary components: (a) the reconstruction of prior experiences as a starting point for the design of conceptual learning sequences; (b) the analysis of significant personal and/or social experiences through the use of inquiry/problem solving approaches; or (c) the involvement in new experiences within a systematically organized framework of skills, concepts and attitudes. It should be stressed that all of these components have been linked at

one time or another to effective experiential curricula[2] in the literature, but their translation into actual curricular practices has been minimal.[3]

Given this problem, the purpose of this study was to determine if a manageable set of principles for the development of experience-based curricula existed in theory and if these principles could be developed into a practical set of implementable guidelines. The intent of the study was to concentrate on the development aspects of curriculum (what would be labeled as the selection and organization of learning experiences in the Tyler Rationale) rather than the design aspects (e.g. ends sought statements, goal analysis, needs assessment, etc.)

Due to the ambiguous nature of the term experience curriculum alluded to above, it was determined that one of the sources of this ambiguity should be thoroughly investigated. For this reason, John Dewey's theory of experience was chosen as the most appropriate theoretical source. Though stated most explicitly in Experience and Education, the theory had been expressed, analyzed and revised by Dewey and others in numerous prior and subsequent writings. As a result, the theory had been open to a wide range of interpretations (or misinterpretations) by those who sought to implement it.

For purposes of the study, an experience-based curriculum was defined as using experience in the following ways: (1) as a source for learning activities which would be illustrative of the concept, skill, generalization, principle, etc., being taught. In other words, what elements in the learner's background of experiences already existed prior to instruction that could be reconstructed during the process of instruction; and (2) as a means for developing new learning experiences

which would be built upon the experiences previously reconstructed. In short, a device for sequencing based upon an experiential continuum. The definition thus became the vehicle by which the rhetoric on experiential learning was analyzed and interpreted and the curricular practices labeled as experience-based were evaluated.

Working from this definition, our analysis of the literature led us to conclude that an effective experience-based curriculum could be developed systematically if four principles were utilized in the development process. The four principles inferred from Dewey's theory of experience are:

(1) The selection of learning experiences should be based upon the continuity and interaction of the learner's prior, current, and consequent experiences.

(2) Sequencing should be based upon the development of the learner's experiential continuum.

(3) Action and reflection should be utilized in the reconstruction of prior experiences and the introduction of new experiences.

(4) Subject matter should emerge through the process of inquiring into antecedent and consequent experiences.

What follows, then, is an examination of each of these principles in order to establish basic definitions, provide supporting evidence to further clarify the assumptions underlying the principles, and present illustrative examples to demonstrate their application. Examples will be drawn from contemporary curriculum practices and materials which illustrate the principles either partially or totally.

Continuity and Interaction

Of the four principles enumerated above, the necessity for continuity and interaction of experiences was considered by Dewey to be the most critical.[4] Continuity refers to the sequential relationship among experiences; that each experience takes something from those encountered before and modifies those which follow.[5] Experiences do not exist in a vacuum. They affect each other proactively and retroactively with their degree of educativeness related to the amount of connectedness perceived by the individual. Though a learning experience may, in and of itself, be interesting and enjoyable to students, without being linked cumulatively to other experiences it is of limited educative value.[6]

At the same time, the curriculum developer must also be aware of the interactive nature of experiences. Interactive experiences contain both an objective and subjective element. They link the individual to his/her environment. As Dewey points out:

> A primary responsibility of educators is that they not only be aware of the general principle of the shaping of actual experience by environing conditions, but that they also recognize in the concrete what surroundings are conducive to having experiences that lead to growth.
>
> Above all, they should know how to utilize the surroundings, physical and social, that exist so as to extract from them all that they have to contribute to building up experiences that are worth while.[7]

Hence the interaction of the learner and the surroundings would include such factors as familial and peer relationships, awareness of community, state, national and international membership, media influences, etc., though not in such neatly unfolding concentric circles as some social studies educators would have us believe. In addition, the physical

environment of the learner must be incorporated into the curriculum both inside and away from the classroom.

The educative power of an experience is based upon the relational contexts that are created.[8] An experience-based curriculum is not a spectator curriculum. The student does not stand on the sidelines as an onlooker.[9] Rather, s/he is intimately involved because the experiences are ultimately his/her own on both an individual and collective basis. This means, for example, that the formation of language skills or political awareness is individual but at the same time part of a "community" development. Language is learned to communicate thoughts and feelings[10] and political skills such as decision-making, influence, and the use of power are developed by children in order to become more active members of their environing world.[11] These skills are formed through interactive experiences and thus lend themselves to experience-based approaches.

Operating together, the concepts of continuity and interaction provide focus to the selection of experiences. In the Sounds of Language[12] reading series, for example, Bill Martin, Jr. draws from the student's prior oral experience with language and modifies the subsequent experiences through language in the form of print. Within the context of the subject matter, the student is encouraged to bring his/her prior oral framework of experiences into the understanding of the written word. Similarly, Fannie and George Shaftel's Values in Action[13] utilizes role playing to reconstruct value conflicts students may have experienced in their own establishment of human relationships. Continuity is enhanced by having the students become aware of the consequences of behavior; i.e., an experience will alter subsequent

experiences. Following much the same perspective, Richard Remy's and Roger La Raus's Citizenship Decision-Making[14] (CDM) materials provide a set of structured experiences that encourage the teacher to draw from and link student's experiences in group decision-making in their environment. The concept of making decisions about rules is introduced by having students identify rules they made or are affected by in the home, school, community, or among friends. They then reconstruct a situation in which they encountered rules and finally apply principles of rule-governed behavior that they have deduced to a new problem in which a decision about rules is needed.[15]

Aspects of the Experience-Based Career Education (EBCE)[16] curriculum developed in various forms by four different regional laboratories[17] demonstrate the use of continuity and interaction as well. To some extent, the prior experiences of the learner are linked to experiences in the community though this is not carried through systematically in the curriculum. Interaction is utilized more consistently as the students engage in "applying concepts and solving real problems in a functional context."[18] As a result, the "environing world" of the students' community serves as the focal point for introducing new career-oriented experiences. The stress here is clearly on the objective elements of interaction rather than a balance between the internal and objective components of experience, and this may weaken the meaningfulness of the experiences measureably.

As noted earlier, the continuity and interaction of students' prior, current and subsequent experiences is critical to the design of experience-based curricula. They provide the criteria for the selection

of learning experiences. As such, they cannot be separated. They "intercept and unite."[19] Without the balance between continuity and interaction, experiences will either be unconnected or depersonalized. Thus, an adequate design must attend to developing within the learner a sense of how the experiences encountered relate to his/her perceived environment and what the cumulative effect of these experiences is.

The Experiential Continuum

Central to the concept of continuity is the development of the learner's experiential continuum. Dewey, in fact, used the terms synonymously, but for purposes of this study, the experiential continuum will be examined separately. This is done in order to emphasize its importance in not only selecting learning experiences but in sequencing them. Any sequencing in an experience-based curriculum should clearly demonstrate how a continuum of experiences is emerging in a progressive, spiraling fashion. The spiraling should develop not by way of the disciplines as it does in Bruner's approach but as an ever-expanding series of experiences that build upon one another and increase one's capacity to solve problems.

The experiential continuum, as Dewey points out, affords an occasion "by which the child is moved to educe and exchange with others his store of experiences, his range of information, to make new observations, correcting and extending them in order to keep his images moving, in order to find mental rest and satisfaction in definite and vivid realization of what is new and enlarging."[20] This creative act of enlarging upon experience is most effectively accomplished when the school is connected with life. Again, Dewey says, "that the experience gained by

the child in a familiar, commonplace way is carried over and made use of there, and what the child learns in the school is carried back and applied in everyday life, making the school an organic whole, instead of a composite of isolated parts."[21]

Perhaps the most lucid description of the role of the experiential continuum is provided by Robert Pollock when he says:

> Like James, he (Dewey) looked on experience as a continuum, and not at all as a 'rudderless raft.' As he saw it, man does not live his life amidst events which are indifferently neutral to him, for these events are taken up into an integrated scheme which forms a more or less coherent story. Dewey describes this temporal process as an integrated series of episodes whose wholeness imparts to each episode a meaning it would not have if it were part of another story. Hence human consciousness has a dramatic quality which cannot be ignored when we view man in the full concreteness of life and history.
>
> Man is actively engaged within a growing process involving the whole world, and through his active participation, the story unfolds. And meaning itself takes shape within the unfolding story; each moment contributes to a 'continuum of *meaning* in process of formation.'[22]

Thus, the development of the experiential continuum is a vehicle for deriving meaning from experiences which at the time may appear unconnected.

The formation of linkages among in-school and out-of-school experiences in an experience-based curriculum is critical to the development of a continuum, and sequencing becomes of paramount concern. Many excellent schemas exist for organizing and sequencing content,[23] and several of these can be adapted for use in an experience-based curriculum. The strongest of these would be the ones that emphasize the relationship between antecedent experiences and their consequences. Curricula that incorporate student involvement in decision-making and problem-solving would appear to lend themselves to the development of an

experiential continuum because of their focus on creating alternatives and weighing consequences.

Though not explicitly stated, the Sounds of Language materials could be used to help make the student more aware of his/her language experience continuum. Much of this would be contingent upon the teacher's ability to link the child's oral language forms to a consequent set of written transcripts. The sequential development of language would need to be continuously stressed in these activities.

Materials such as Citizenship Decision-Making provide students with the opportunity for concretizing their continuum of political experiences as they reconstruct everyday situations within the classroom. This is done in a variety of ways using role-playing and socio-drama (in a manner similar to Values in Action), simulations, structured activities, and out-of-school experiences. The sequencing progresses from the more familiar political decision-making concepts and principles (e.g. everyone makes decisions, rules govern our behavior, decision-making involves considering alternatives and consequences) to the more complex (e.g. all societies have social values, there are different ways to make decisions, there are different ways to influence and judge decisions). Within each lesson, the specific activities generally move from the more familiar environment (e.g. home, school) to the less familiar (e.g. community, state). Though the materials are designed to utilize students' experiences, the sequencing moves them from these experiences to the more "enduring tasks of citizenship"--making, influencing and judging decisions.

Though the Experience-Based Career Education curriculum uses the project method as a primary mode of learning, they place a heavy emphasis

on the use of inquiry and problem-solving skill development within the context of the projects.[24] There also appears to be more external direction and structure than in Kilpatrick's original proposal. The possibility for developing an experiential continuum is directly related to the effectiveness of the advisory group sessions since this is where student's experience-based learning is supported and expanded. The emphasis would seem to be more on connecting experiences gained through the projects than on linking prior experiences or seemingly unrelated outside experiences to current projects. Thus, the sequencing would have to be developed primarily through experiences gained in the projects and would be educative (in the Deweyan sense) only if there was a progressive expansion of career-development skills via these experiences, and these were reflected back in such a way as to incorporate the prior or unconnected experiences.

Action and Reflection

Reconstruction of prior experiences and the introduction of new experiences within the curriculum are made more meaningful when action and reflection are used in concert. The critical element in their utilization is the discovery of the appropriate degree of balance between them. Generally, curricula labeled as experiential have been long on action and short on reflection. A case in point involves many teacher education programs that have jumped on the field experience bandwagon under the assumption that more is better. While the actual experience of working with students in a field or clinical setting may prove valuable, it also has the potential for being mis- or non-educative. The necessity for reflective reconstruction of those experiences is

critical for effective learning. This problem was discussed at some length by Dewey in an often overlooked essay entitled, "The Relation of Theory to Practice in Education,"[25] written in 1904. Similar difficulties with the balance between action and reflection can be identified at virtually every level and type of schooling.

In Democracy and Education, Dewey warned against reducing action and reflection to mere trial and error. He pointed out that we often see the connection between a way of acting and its consequences, but do not see how they are connected. We miss the details of the connection.[26] The function of reflection, then, is to:

> "transform a situation in which there is experienced obscurity, doubt, conflict, disturbance of some sort, into a situation which is clear, coherent, settled, harmonious."[27]

The reflective process thus follows the five step problem-solving method consistently referred to by Dewey: (1) involvement in a problem situation; (2) development of a hypothesis; (3) analysis and exploration of the hypothesis; (4) refinement of and elaboration upon the hypothesis; and (5) testing the hypothesis.[28] Using this format, the reflective process could be approached through any one of several well-developed teaching models such as the group investigation, social inquiry, jurisprudential or inquiry training models.[29]

In following Dewey's schema or others based upon the scientific method, one needs to overcome the tendency to equate action with activity and reflection with covert or passive behaviors. Reflection need not only involve discussion. In some instances, the methods may be reversed. The action phase could be introduced through a non-active medium such as a discussion or demonstration in which a thought is actively pursued.

The reflective phase might then be approached through an actual reconstruction of an experience encountered previously. In this way, through role-playing, socio-drama, simulation, etc., the initial doubts, conflicts, or obscurity could be observed, analyzed and clarified. The critical characteristic to remember about reflective thought is that it is transitional. It mediates an experience, moving it from the accidental and causal to the relatively settled and defined.[30]

By the same token, the tendency to overuse action needs to be guarded against. The desire for "doing" could leave the learner in the position of having a tremendous number of experiences which cumulatively lack any substance because they are incomplete. As a result, the learner develops a preference for what Pollock calls "situations in which the most can be done in the shortest time."[31]

Extant curricula and instructional materials that utilize action in their experience-based programs are relatively easy to identify. Most often, the action takes the form of overt activity usually employing concrete referents or direct in class and/or out of school experiences. Less common are the programs and materials that combine an appropriate blend of action and reflection. Those which utilize some of the models alluded to earlier tend to be more successful in their implementation of the action-reflection principle.

Language experience approaches such as Sounds of Language appear to successfully fulfill the criteria presented by first recording students' stories based on their experiences, transcribing them and then having students read the stories. The oral-written communication is then analyzed in terms of the experience and the language used to describe

it. Other methods employ creative, fanciful stories which oftentimes reflect the kinds of experiences students have had with fantasy.

Values in Action tends to follow the Deweyan schema for developing the reflective process. The action phase may either be stimulated by a real experience or through role-playing and socio-drama. Reflection occurs during the reenactment of the initial role-playing episode and usually results in the creation of generalizations and decision-making.

The CDM materials follow much the same tactic in their lessons though the reflective process is concretized considerably through the use of a decision tree. Adopted from methods used successfully by businessmen and social scientists, the CDM decision tree actually resembles a tree with its trunk being the occasion for decision and its branches being the alternatives and consequences. As in the Values in Action materials, the desired goal is more effective, better informed decision-making.

The EBCE curriculum appears to be much stronger in its action phase than in its reflective phase largely due to the powerfulness of the direct experiences the students are getting in the community. Though the student learning plan[32] does allow for potentially reflective activities by way of personalized counseling, discussion and negotiation sessions, a more readily discernible structure for reflective episodes is needed. Based on the format most often employed by EBCE, the logical point for the reflective process would be during the planning and/or replanning phases. At that point, prior experiences could be reconstructed as a guide for planning further career-oriented experiences.

The Emergence of Subject Matter

Even though Dewey went on at some length about the important role of subject matter in an experience-based curriculum, his precepts often went unheeded by both contemporaries and present day advocates. Most notable was the "project method" developed by William Heard Kilpatrick since its influence was so wide-ranging and pervasive. Because of its inordinate stress on child-centeredness, the organized bodies of subject matter were relegated to chance discovery within the context of the four types of projects Kilpatrick described. This lack of structure was inimical to what Dewey believed to be the emergent role of subject matter. As Lawrence Cremin points out in his analysis of Kilpatrick's child-centered project method:

> Dewey, too, talked about problem-solving as central to education, and Dewey was deeply concerned with the interests and purposes of children. But Dewey's enterprise ... was to develop a new curriculum to take the place of the old--a new body of subject matter, better ordered and better designed, that would begin with the experiences of the learners and culminate with the organized subjects that represented the cumulative experience of the race.[33]

Apparently, Kilpatrick had chosen to disregard Dewey's statement in The Child and the Curriculum in which he described the child and the curriculum as two limits defining a single process, that process being the continuous reconstruction of experience moving from the child's present experience into the organized studies or subject matter.[34]

In addition to the over-emphasis on child-centeredness, the experience curriculum also suffered from its stress on life-adjustment. Reginald Archambault examined the philosophical base of such curricula and determined that their major weakness was a lack of synthesis between subject matter and experiences.[35] Thus, important concepts might not be

learned simply because they weren't encountered. Much of this occurred because developers failed to get beyond those experiences that led to an adjustment to existing conditions. In their efforts to provide immediate experiences, they failed to incorporate Dewey's concern for recognizing persistent societal values as a foundation for making judgments about and changes in the environing world.[36]

These excesses and their present-day progeny are surprising in that Dewey explicitly discussed the role of subject matter in some detail in both Democracy and Education and The School and Society. Central to Dewey's conception of the subject matter emerging from student's experiences was the role inquiry played in understanding the experiences encountered. Through action and reflection, the inquiry process would be energized and would culminate in a more meaningful understanding of concepts, principles, generalizations, attitudes and skills that comprise the subject matter. Neither the mode of inquiry nor the subject matter encountered would be indigenous to any one discipline or course of study since neither personal nor social knowledge lend themselves to such narrow compartmentalization. In this way, Dewey envisioned the unity of knowledge as each experience was related to the larger whole of social life.[37]

Of equal importance was the necessity for viewing organized bodies of truths (subject matter)[38] as a vehicle for expanding upon the incohate nature of many of the learner's daily experiences. Successful applications of this principle have neither viewed the learner as the sole source of subject matter nor have they expected the learner to attain the same degree of facility with the subject matter as the skilled,

mature individual. Rather, the experiential continuum is expanded upon through such technical skills as planned repetition until the learner, through reflection, begins to discern how his/her set of experiences represent the concept being taught. Effective teachers, especially at the elementary level, do this quite often, but the problem is to develop an emergent conception of subject matter in a systematic way so that the reconstruction of experience is a continuous process.

The Sounds of Language and Citizenship Decision-Making materials appear to employ both inquiry and the progressive reconstruction of experiences in a systematic fashion. Facts, concepts, and ideas are not fractionalized but are seen as part of a unifying set of experiences. Both work from an already established framework of experiences that the child brings to the curriculum but, equally importantly, they synthesize these experiences with a discernible subject matter.

In Sounds of Language, Martin encourages the teacher to draw out the children's unique perceptions about the structure of a word, a sentence and a story. This drawing out process, Martin believes, has meaning because the children are encouraged to "sneak up" on the discovery of language patterns and verbalize what they've known from experiences with oral language. The CDM materials employ a similar kind of "sneaking up" process though in a more structured format. Using such phenomena as leadership and followership (deciding whether to go along with the gang), cooperation and conflict (settling an argument over an interpretation of rules), and influence and power (parent-child negotiations over bedtime),[39] the materials introduce the students to the politics and governance of their everyday lives.

The Values in Action and Experience-based Career-Education curricula also have somewhat of an emergent nature to their subject matter. Like the materials discussed above, these curricula also transcend traditional subject matter boundaries, and this creates a more unifying effect on the content encountered. As noted earlier, the Values in Action program appears to build on prior experiences more consistently than the EBCE curriculum. The EBCE curriculum, however, appears to have more potential for the expansion of experiences since students are encouraged to continually reconsider career goals and interests vis a vis their congruence with individual lifestyles and values.[40] The Values in Action program would most likely create a similar expansion if it were linked to a more organized framework for analyzing students' experiences. The critical problem to be overcome in both cases is the tendency to concentrate on processes without a concomitant growth in conceptualizing one's experiences in relation to a unifying whole. Hence, the prospect of their going the way of the project method and the life adjustment curriculum is perhaps greater than with the Sounds of Language and CDM materials.

Conclusions

Though the amplification of the four principles for designing experience-based curricula concentrated on a relatively limited number of existing materials, this is not meant to imply that these are the only exemplary experience-based curriculum materials available. Potentially powerful experience-based products and programs have also been developed in the math-science area,[41] the social sciences,[42] and in interpersonal relations[43] and personal/social awareness.[44] The exami-

nation of the role of experience in curriculum development also continues as designers attempt to create taxonomies[45] and describe postulates[46] as a guide to planning more systematic experiential learning sequences. While these efforts are encouraging, the concomitant "sorting out" process needs to continue so that terminology and purposes are not unnecessarily confused.

The four principles defined and discussed in this study were viewed as a necessary first step in the sorting out process. By determining what appear to be essential elements in experience-based curricula, existing programs can be evaluated more consistently and new programs can be planned more coherently. The examples drawn from existing materials illustrate the salient characteristics of the principles extrapolated from Dewey's theory of experience. The principles and the evidence which support them indicate that a manageable and implementable set of criteria are available, and that effective curricula have been developed which incorporate them.

Footnotes

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