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ABSTRACT

The director of a recently completed curriculum development project describes the project's need for product criteria to serve as guidelines for materials development. The background and context for criteria development involved the need to reconceptualize and redesign the contents and methods of career exploration activities envisioned for junior high and middle school students. This retrospective analysis describes (1) the background and context that required extensively revised criteria, (2) the deliberative steps taken by project staff to develop criteria for guiding development of instructional materials, (3) the actual criteria developed as a result, and (4) an interpretive summary and conclusion drawn from the analysis. The paper was presented as part of a symposium exploring the value of retrospective accounts of curriculum deliberation as a source of knowledge about the curriculum development process. (Author/MLF)

A Retrospective Analysis of the Development of Program Criteria

by

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I. INTRODUCTION

A few months ago a curriculum development team completed a three-year project and delivered its 80 products to a publisher. The project cost over a million dollars, and it employed an average of fourteen people. As project director I have been asked to review and critique and analyze the project as though it were a model system for curriculum development with particular theoretical underpinnings. People seem to want from me a paradigm for doing it again, or for doing something similar. There seems to be considerable interest in contracting for curriculum development, management procedures, staffing, and quality control measures. And the premium attached to whatever prescriptions I might offer seems related to the perceived innovativeness and productivity of the project. A curriculum project which is innovative and productive should be able to teach some lessons, they seem to say. And indeed our project can be viewed as though it produced a sophisticated delivery system with clever pre-packaged experiences and an array of media.

Nevertheless, this paper is not a response to that kind of concern. Someplace else, at some other time, I will write about how a systems approach might help others develop media for learning. And I will tenderly try to talk of those institutional concerns about controlling and replicating the process without widening the gap between curriculum rhetoric and performance. After all, there are matters to be analyzed for improving how curriculum developers do their work in institutional settings. Most of it goes on there, anyway.

Instead, this paper is more about the roots of curriculum work. I want

to consider how our curriculum development staff went about identifying educational content and finding ways to make it available to young people. This root concern was embodied in a particular phase of the project: the development of program and product criteria. This phase of the project was the most critical for me as the project director because it was the means by which we could collectively envision how certain kinds of educational experiences can be made accessible to students through classroom-use materials. I will tell you about some deliberations we engaged in to derive a relatively simple set of overall program criteria which included criteria for product development. While I don't know if what we did should serve as a model for anyone else, I do remember the criteria development activity of our project as the solution to a major problem we faced. Criteria development also seemed to alleviate some lesser problems, as well.

I want to address this topic mostly through an introspective lens, giving at times my very personal ideas about the problem and its solution. I want to talk about this as I wish other curriculum developers to talk to me about what they did. Schwab (1969) says the curriculum field is moribund, and Huebner (1976) says its practically dead. I can assure you that curriculum work never seems more so than when there is no one to talk about curriculum development as personal experience.

II. BACKGROUND FOR CRITERIA DEVELOPMENT

We conducted the curriculum development project at The Center for Vocational Education at the Ohio State University. Entitled The Occupational Exploration Program, its name failed to denote the project in either its first stage or its second stage. Now the set of products is entitled Seek in the publication and marketing stage. Included are simulations, games, and assorted other products designed to promote occupational exploration.

The first stage of OEP had its origins in Model I, the School-Based Model of The Comprehensive Career Education Model (CCEM). As part of a vast instructional system under development, the CCEM staff had determined that simulation was the best "delivery system" to be aimed at junior high classrooms and the people in them. In August 1972, when I came to work on CCEM, I found people on one hand thinking about how adolescents might attain exploratory objectives which I thought seemed liberating and growth-producing. And on the other hand plans were being made for massive development and installation of complex, high-fidelity simulated replicas of work world tasks. These simulations would be systematically organized to involve the student in a full-scale management system of covering the career cluster waterfront. The richer the media-mix, the better, and where reading might be required, another media alternative to reading would be provided. Furthermore, it was intended that students would opt in and out of clusters and simulations according to their motivation and interests. But also these simulations would be self-managed or teacher-free.

In my mind these plans would require a radical reform of both the physical and psychological character of school settings. I was quite concerned about the basic inconsistencies and conflicts I saw emerging, and I found it hard to live with many of the assumptions guiding the conceptualization of occupational exploration. I couldn't agree with the need for a system which denied the legitimacy of adolescence and the tentativeness of that growth stage. I feared a system that would cause an adolescent to become embarrassed by his or her indecision and confusion. And I couldn't see how convergence on a systematically generated occupational decision had much to do with real exploration. It was ludicrous to try to show adolescent exploration on a flow chart.

While I was concerned, these matters were not directly my business since I was working on different, unrelated projects. Before long The Occupational Exploration Program became a separate project distinct from the Comprehensive Career Education Model. The staff forged ahead with the production of a set of complex simulations destined to be the core of the program. Toward the end of the first year of prototype development amid some organizational reshuffling, I was assigned as task force leader of the project. While I had already learned the hard lesson of bureaucratic niceness, I nevertheless felt compelled to voice my concerns about the qualities of the educational experience OEP seemed to embody. It was some relief to find that many OEP staff had come upon similar concerns their own way, and I found that some of the cavalier specifications for an OEP machine had been tabled. Meanwhile, evaluations of the prototype simulations seemed to show that the simulations were producing some desired results. Even though they were tested under special conditions, students seemed to show gains in occupational information and changes in at itudes about the occupations they encountered. And despite the serious, pervasive problems of content, process, implementation, and acceptability, a conclusion was drawn that the simulation form could work. My unresolved question was whether or not seeming gains in occupational information and changes in attitudes toward certain occupations meant that occupational exploration was occurring.

If this history I am providing seems impertinent, I should explain that these background problems suddenly became mine. Amid further reorganization, I was appointed as project director. As task force leader my sensibilities were disturbed, but I had little access to change the developmental direction of OEP. As project director, however, I awakened to a more poignant feeling of personal and professional liability.

Across-the-board consensus mandated that the OEP project should be continued for another year of development, but that it must be wholly reconceptualized and restructured. I saw that we could organize ourselves as a design team with maximum emphasis on collegial work, and at this turning point in the history of The Occupational Exploration Program I believe we began to develop for the first time a set of program criteria. We were willing to talk at length about the quality of educational experiences which might be embodied in the new OEP, and about design options available to us. And as we worked on our official proposal for project continuation, in effect we created a plan for researching and generating program criteria.

While we talked about redesigning OEP, we also anticipated that quality control needed careful consideration. Surely a project director must be concerned with quality control mechanisms. I wanted one which would enable developers to reach toward levels of quality they understood and to know how close they were coming. The important issue of quality control and what we did about it is the topic of a related paper, Altschuld and Lave's "A Retrospective Analysis of the Development of a Project Monitoring System." But before quality control made any difference, I had to be concerned with the goodness of the classroom experience for which OEP was to be redesigned.

III. DEVELOPMENT OF PROGRAM CRITERIA

The second stage of OEP began with a few givens. We developed our continuation proposal which specified a series of milestones and tasks to be accomplished, and a resource allocation and management plan. We knew the quantity of work to be accomplished, and how much time we had. Only a few qualitative aspects were given. For example, we would continue to emphasize use of the simulation technique, and so whatever is inherent in simulations would also be found in the new OEP. The whole picture of the

program and its products had to be researched, conceptualized, and given shape in products yet to be specified. These would be the project's deliverables.

But the most important new constraint was that for the first time The Occupational Exploration Program had to become commercially publishable. The sponsor required this, and we thought it was a good idea. Publishers do seem to have excellent access to schools, and the notion of our creating a set of materials and seeing it published was very appealing. This one broad criterion would have a profound effect on our work, however. Now our deliberations to generate criteria were confined to envisioning only the sort of educational activities which might be printed, fabricated, and marketed by a publisher. The economics of publishing became a screen for our future inventions, and it underscored the importance of streamlining both the process and the products.

An energizing factor which seemed to impress me and other staff members was that were were contractually responsible for effective design creativity rather than for running a curriculum product mill. The contract itself, even with all of its cooly dispassionate language, seemed to help set a format for rigor and creativity. The initial core staff had successfully proposed to design and develop a curriculum program yet to be specified, and that represented a prior commitment to criteria development. I sensed a genuine acceptance of the problem situation, and to me this acceptance is a canonical first step in any design process. We had stated our initial intentions and accepted the problem as a challenge. Collectively we gave up our autonomy to the problem and we allowed the problem to become our process -- a design process.

The next set of deliberations for developing program criteria pertained to an analysis of the problem. We needed to get to know the ins and outs of the problem and discover what the world of the problem looked like. To do this we used formal and informal means.

We considered the pilot test data collected earlier during the first stage of OEP development. Through data analysis and interpretation, we derived a list of refinements needed in the simulations as though the pilot-test was our only source of knowledge about what to do. But it was easy to extrapolate from those findings what our ultimate criteria might be like.

We also conducted a formal literature review as a way to analyze and get to know the problem. We read and deliberated about simulations and games and the differences between them. We considered literature on mental health and the work ethic, and talked about how necessary it is to avoid glib assumptions about how education, work, and the labor market go together. We established points-of-view which moved us away from behavioral objectives and helped us articulate a rationale for doing so. And we concluded from any number of vantage points that we were not going to develop a program of materials which would account for all of the students' occupational exploration.

It seems that as we looked at the literature and talked about issues, I myself began to articulate a platform for occupational exploration. And other members of the staff contributed planks, as well. The platform took shape as we analyzed the problem, especially as we considered all of the value laden aspects of occupational exploration which had been neglected before. I felt that there was a great deal of deference to my opinions and to platform-type statements I would make, but somehow that seemed acceptable to me and to the others. Casting my confusions about manipulation vs. control aside,

I provided conceptual leadership and direction which, I fear, sometimes bordered on bravado. With my promptings and through our deliberations, we informally adopted platform planks about such matters as the tentativeness of adolescence. For example, we asserted that adolescent behavior is natural and good, and that OEP should use it instead of trying to get rid of it. We made statements about broadening exploratory possibilities instead of narrowing them, and whether students should engage in simulations to see the working world as it is or as it might be. And I talked a great deal about what might occur in classrooms through OEP, and I explained my bias toward attaching a legitimacy to students' metaphoric and intuitive abilities as well as their rational and linear capabilities.

The next deliberative step we took was to conduct a market review. We needed to find out who would want OEP and under what circumstances. At that point we had many bits of criteria information in our hopper -- information about prototype simulations, literature reviews, and lots of our own ideals and interpretations. The market review put us in the position of having to take a tentative stand on the basis of our amorphous pile of criteria and the emerging platform for OEP. We organized and conducted a conference which included the OEP staff, the sponsor, as well as teachers, principals, guidance counselors, and publishers. Frankly, while we did derive some new information, the market review and conference seemed to corroborate and focus the data we already had. To conduct the conference, we had to sort what we knew and what we needed to know, and we also had to portray the clearest picture of our intentions as we understood them.

A final deliberative phase involved going to the wall. The staff covered an entire workroom wall with butcher paper and began cutting and posting and categorizing hundreds of slips of criteria information. More shifting and sifting was followed by sorting and reporting. Duplications

were cast out, and soon common perspectives could be merged, and the volume of individual information pieces was reduced. Then, when the wall had served its purpose, the newly ordered and classified criteria in raw form were tediously transcribed into booklet form and color coded so we would always be able to retrace the sources for any criterion. The last honing of the criteria took place, and a brief description of the program was written to introduce the outline of criteria for program and product development which had finally been generated.

We tended to treat the criteria we stated as though they were promises we would keep, and so we were cautious not to promise more than we would be able to deliver. As a safeguard, qualities of the program which were vital to us, but not safely promised as criteria were dealt with in the narrative program description. The final criteria were grouped: (a) Characteristics of Program Activities, (b) Characteristics of Occupational Information, (c) Characteristics of Instructional Materials, and (d) Characteristics of Program Marketability.

IV. THE PROGRAM CRITERIA

Characteristics of Program Activities

1. Activities will include a balance among solo, small group, and large group explorations. They will include occupational simulations, learning games, and other techniques which encourage active exploration.

2. The simulations will constitute major exploratory activities. Each simulation should require from 7 to 15 class sessions (or instructional hours) involving from 7 to 12 students.

3. Other exploratory activities in addition to the simulation should afford the flexibility to involve other students for 15 class sessions (instructional hours) or more.

4. Activities will be included that allow students to make work-related judgments and decisions.

5. Activities will be included that allow students to practice exploration skills.

6. The program will be varied in its appeal in order to encourage self-initiated explorations.

7. The program will be manageable by students to enable them to engage in self-affirming activities.

8. Wherever possible the program should allow students to use personal knowledge and skill to effect exploratory outcomes.

9. The program activities will take into account:

   a. how the students' emerging values will influence their ability to make choices in the world of work.

   b. the importance of students' discovery of personal needs and the recognition of ways in which these needs can be satisfied in the world of work.

   c. the need for students to exercise volition in developing their skills and capabilities.

Characteristics of Occupational Information

1. Information about occupations and occupational work factors will be included that is immediately useful to the student to help him or her engage in the exploratory activities.

2. While all occupations and occupational work factors will not be represented, the program will contain a representative range of occupational work factors, including:

   a. Work responsibilities: those personal, interpersonal, ethical, legal, contractual and functional behaviors and tasks which account for relative success or failure in occupational endeavors.

   b. Work relationships: those interconnected dealings of people who are reciprocally interested in various outcomes of occupational endeavors.

   c. Work processes: those actions, operations, or methods performed individually or in groups which yield particular results in occupational endeavors.

   d. Work environments: those physical, geographic, social and psychological factors that surround and impinge upon an occupational endeavor and influence the individual or the group involved in that endeavor.

e. Work outcomes: the personal and social effects, consequences, results, events, products and issues which result from the complex of work responsibilities, relationships, processes, and environments of occupational endeavors.

3. The program will represent occupations and workers without unfair bias or distortion.

4. The program will treat occupational characteristics in light of the changing nature of personal, economic, and societal characteristics.

5. Occupational characteristics will be represented by information that:

   a. reflects contemporary conditions and projects trends,
   b. is accurate at an appropriate level of detail,
   c. may be simplified so that the information will be appropriate and useful in the ongoing exploratory process.
   d. encourages students to look forward to participation in the mainstream of economic life.

6. The program will help students identify the value of individual occupational endeavors rather emphasize the comparative status associated with occupations.

Characteristics of Instructional Materials

1. The instructional materials will be usable with facilities and audio-visual equipment generally available to middle schools and junior high schools.

2. The packaging of program materials will facilitate their distribution, retrieval, maintenance, and storage in conventional classrooms.

3. The program materials will be designed with full consideration of their attractiveness and appeal for both students and teachers.

Characteristics of Program Marketability

1. The program will be designed for use by students who

   a. are approximately 12 to 14 years of age.

   b. are at the seventh or eighth grade level or equivalent, but not necessarily precluding students at the sixth or ninth grade level or equivalent.

   c. have the ability to engage in some independent work.

   d. have the ability to participate effectively in small group activities.

2. The program will be cost competetive with other multi-media instructional programs being marketed.

3. The program design and materials will facilitate diversified use by schools through:

   a. making the program components useful whether all of the program or selected parts are purchased.

   b. allowing for teacher and/or student selection, pacing, and grouping of components for classroom use.

   c. allowing for administrative flexibility in implementing the program, including:

      1. staffing variations
      2. scheduling adjustments
      3. access of facilities
      4. provision of equipment
      5. application in various subject areas

   d. Program activities generally will afford flexible use in various subject areas, and will help teachers enhance the relevance of subject matter to the student's experiences.

V. SUMMARY AND CONCLUSION

The development of program and product criteria for The Occupational Exploration Program was an indispensable sequence of project activities which enabled us to clarify purposes and find reasonable direction for our work. It was a way for us to discover the ins and outs of the curriculum problem at hand, and to discover what the world of the problem looked like. As we defined the limits of the problem, we were freed from much uncertainty and ambiguity. In particular, criteria development helped us envision the educational setting for which the contracted deliverables were intended. The process forced us to the useful task of envisioning what desirable experiences we wanted to stimulate for teachers and students in classrooms.

The criteria development also helped us approach the problem as an ensemble interested collectively in the crafts of curriculum development. Developers who, in an earlier stage of the project, had very limited

responsibilities and tasks to perform soon became more integrally involved as we sought criteria. The character of staff interaction also seemed to change, and all of the varied expertise attained a status of legitimate importance. Wheras trained graphic designers formerly had been considered mere technical illustrators, they became conceptualizers during the criteria development phase. Their stance changed as they saw they could apply their trained expertise to this design problem.

The sense of proprietorship the staff had regarding the problem and the related need for criteria made my work as project director different, and perhaps more effective. Just as I provided leadership in interpreting the emerging criteria and platform planks, I was also able to work with developers later as we began to work on style, texture, and technique in the actual materials. My early work with developers to model our first products may not have worked so well without the criteria development phase behind us. I believe that the criteria gave us great latitude for creativity and invention, not only for the initial core staff who generated them, but also for the new staff members who arrived later.

And finally, the criteria development phase helped establish a working monitoring system in which developers were able to critique and refine their colleague's work. With the review system in effect and the criteria in hand, developers were continually able to deal with new ways to realize the criteria and to enlarge their understanding of what occupational exploration for adolescents can mean.

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