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CHAPTER THIRTEEN

ADAPT: The First Five Years

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The ADAPT program has, throughout its brief history, been subjected to continuing evaluation, both to assess its effectiveness in meeting its objectives and to get the sort of ongoing feedback necessary for the program itself to continue developing. These evaluations have ranged from formal, objective comparisons, on a variety of measures, of ADAPT students with one or more groups of control students not involved in the program to more informal and subjective observations of classroom activities, analysis of written assignments, and interviews with students. Detailed reports of these evaluations are available elsewhere, e.g. (Johnson & Moshman, 1980, Sheldon, 1978; Tomlinson-Keasey, Campbell & Fuller, 1978; Tomlinson-Keasey and Eisert, 1977, 1978; Williams 1979, 1980). This chapter will briefly summarize the findings and conclusions from these various reports, eschewing tables of data and details of the statistical analyses in favor of a general picture of the program and its outcomes. (All differences between groups discussed below were statistically reliable at conventional levels, $p < .05$ or better.)

Sources of evidence

Obviously, no single data source could provide a definitive assessment of the ADAPT program. Information helpful in evaluating ADAPT has, in fact, come from a wide variety of sources. These include:

1. A paper-and-pencil test of formal operational reasoning developed by C. Tomlinson-Keasey and T. Campbell (see Arnold, Lonky, Kaus & Eckstein, 1980, for validation data), including such competencies as systematic generation of combinations, proportional reasoning, probabilistic reasoning, isolation and control of variables, and comprehension of correlations.

2. The Omnibus Personality Inventory (Sanford, 1956), a measure of personality development including both intellectual and emotional aspects.

3. The Conceptual Complexity Assessment (Harvey, Hunt, and Schroeder, 1961), a measure of one's degree of abstraction, differentiation, and integration in conceptualizing issues.

4. The College Student Questionnaire Part II (Educational Testing Service), a standardized, multiple-choice attitude questionnaire assessing such items as the student's perception of peers and of society, attitudes toward faculty, and satisfaction with the University environment.

5. The Watson-Glazer Critical Thinking Appraisal (Watson & Glazer, 1964), a nationally normed and psychometrically sound assessment of such abilities as inference, recognition of assumptions, deduction, interpretation, and evaluation of arguments.

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6. Loevinger's (1970) measure of Ego Development, an assessment of maturity of personality functioning.

7. Student responses to various specially constructed questionnaires.

8. Observations of classroom activities and interactions.

9. Analysis of students' written assignments.

10. Interviews with individual faculty.

11. Interviews with students, both individually and in groups.

12. Sophomore-year grades.

Results I: General characterization of students and program

Not surprisingly, students show a wide range of performance on the various developmental measures. Major differences in the degree of abstractness, differentiation, and integration in their conceptualization of issues and in the extent to which they are capable of formal operational reasoning are reflected not only in their performance on cognitive-developmental assessments but in their coursework as well. Thus, for example, there were considerable individual differences between students in their ability to write a paper from the point of view of another person (decentering) or to conceptualize the nature of their own difficulties in understanding certain material (metacognition). Despite these differences, however, it does seem that ADAPT students have been, on the whole, below average in cognitive-developmental level and in preparation for college work. There are, in fact, indications that this has been increasingly the case in successive years of the program, suggesting that ADAPT maybe increasingly perceived as a remedial program for students who might otherwise have particular difficulty in college. Implications of this will be discussed below.

Observations of the program itself indicate that there are real differences between ADAPT and more conventional college education, not just in conceptualization but in execution. Faculty are generally interested in and sensitive to student’s cognitive functioning bug without falling into the trap of trying to teach particular Piagetian tasks. Thus, for example, the assignments referred to above in which students had in one case to write a paper from another person’s perspective and in another case to write about their own difficulties in understanding a passage in the text show an interest in having students decenter from their own perspective (in the first case) and think about their own thinking (in the second).

There are, however, clear differences between the various ADAPT classes in the extent to which use is made of the learning cycle approach, in the roles of professor and students and the nature of classroom interactions, in the amount of small-group work, etc. Thus the faculty clearly maintain considerable individuality in their approaches, though their common orientation and

concerns reveal themselves at the regular staff meetings in discussions ranging from general educational issues to specific students.

Results II: Positive Indications

Positive indications regarding outcomes may be seen both in formal, objective comparisons of ADAPT students with various control groups and in more informal, subjective data. Perhaps the most consistent positive finding is that ADAPT students showed significantly greater gains in formal operational reasoning than did the various control groups. This finding held in each of the three years for which comparisons to control groups were made (i.e., the first three years). ADAPT students also showed greater gains than controls in conceptual complexity, greater gains in critical thinking, and more favorable attitudes toward the faculty in at least one of those years. Evidence from a follow-up study showed that former ADAPT students were more likely than controls to mention their academic program as being, in retrospect, the most important element of their first year of college and to report a drop since their freshman year in helpfulness of faculty and quality of teaching.

In informal interviews, ADAPT faculty showed the effects of their training in how they spoke about students and education and often indicated that their ADAPT experience had affected their teaching style even in courses outside the program. ADAPT students spoke favorably of the program with respect to the small classes, cooperative atmosphere, interaction with teachers, and the active and social nature of the learning involved. The following advertisement, placed by an unknown student in the UNL student newspaper on May 1, 1980, is perhaps the best single indication of the graduating seniors' memories

ADAPT '76-'77
Once again we'll meet in Chesterfield's
Pub at 9:00 pm., Thursday, May 1.
Come have fun with your fellow Sig Figs.

Results III: Negative or problematical indications

Not all is rosy, of course. Although there is little evidence that former ADAPT students are in any respect worse off, compared to controls for having participated in the program, there are numerous findings of no difference (e.g., ego development in the second year, critical thinking in the third year). Follow-up data shows ADAPT students more likely than controls to characterize their second year academic programs as high in difficulty.

Moreover, although their grades are no worse for having participated in ADAPT, neither are they any better. Finally, there are indications that increasing numbers of students are signing up for ADAPT because they, their parents, their high school counselors, and/or their college advisors incorrectly see the program as designed for students with special problems. This may be because in educational circles, unlike in ADAPT, the term "developmental" is often used as a euphemism for "remedial," as if one only needs to develop if one has failed to develop adequately in the past. Since ADAPT was not designed for students with special problems, this is an issue that needs some looking into.

Discussion: Qualifications and interpretations

Evaluation is a subtle and difficult task and its results can never be taken simply at face value. Thus we need to consider a variety of interpretations of both the supportive and nonsupportive data. We will see that the supportive data, though consistent with the view that participation in ADAPT is beneficial, are open to less positive interpretations, while the nonsupportive data, though consistent with the view that participation in ADAPT is not beneficial, are open to less negative interpretations.

Beginning with the positive findings:

1. Any comparison of experimental with control groups in real life (as opposed to in experiments within a psychological laboratory) must be interpreted cautiously since subjects often cannot be randomly assigned to groups and variables other than those of interest cannot be perfectly controlled in order to permit rigorous comparisons. In spite of careful attention to such matters in designing these evaluations and in analyzing the data, results must be interpreted cautiously.

2. Implications of a major educational innovation is an exciting thing for those responsible and participation in it can be equally exciting for students who get involved. Though this is obviously not a problem in itself, there is always a possibility that any beneficial effects of a new program are due not to its actual characteristics but to the general enthusiasm of all concerned in its early years. If that is the case, then it maybe expected that as the radical new approach becomes accepted and conventional, its beneficial effects, which were due only to its novelty, will disappear. Although there is no evidence that this has happened with ADAPT as it approaches the grand old age of five, it is certainly a real consideration.

3. Finally, it could be argued that the apparent success of the ADAPT program in promoting student development and learning has nothing to do with its Piagetian underpinnings but is rather the predictable outcome of arranging relatively small classes and having them taught by experienced and competent instructors who are particularly dedicated to undergraduate instruction. Thus, the sort of instructor who would get invovled in ADAPT might well be the sort who does well with undergraduates even without Piagetian training and participation in a formal program. The evaluation of the first two years did attempt to deal with this problem by including a control group of students from the Centennial Education Program, which resembles ADAPT with respect to class size and instructor characteristics but is not based on a Piagetian model. The evidence that ADAPT students showed greater development not only than regular controls but than Centennial controls as well considerably attenuates this third objection, though the issue of exactly what about the ADPT program is responsible for its effects remains an important one.

As for the negative findings:

1. In cases where measures of development in a particular domain (e.g., personality) fail to show greater gains for ADAPT students compared to controls, the obvious interpretation is that ADAPT does not facilitate development in that domain. It must be kept in mind, however,

that the most important and general aspects of human development are often also the most difficult to measure. Thus it remains a real possibility that ADAPT has significant positive effects on students that we simply have not succeeded in assessing.

2. It must be remembered that ADAPT students have tended to be less developmentally advanced and academically prepared for college than controls. Thus even when evidence shows them doing no better than controls later in their college careers, this might well be interpreted, in a more positive light, as showing that ADAPT has succeeded in bringing students who entered college with considerable intellectual handicaps up to a level of functioning comparable to their peers. That in itself is a noteworthy achievement.

Conclusions:

Though readers will obviously have to draw their own conclusions from all this, our own interpretation of the available evidence is that it is sufficiently positive to suggest continuation and expansion of Piagetian programs at the college level, but not so positive that we can afford to be complacent. An important area for future analysis might be the degree to which ADAPT is beneficial to particular sorts of students and whether some screening in the selection of students might be advisable. It does not appear, for example, that ADAPT was designed either as an honors program or as a remedial program but it does attract some exceptionally competent students and (more commonly) students with serious intellectual/academic difficulties. Is ADAPT presently meeting the needs of such students, can it be restructured to meet their needs, or should such students be screened out in advance? Another issue worthy of serious attention is to what extent the overall program is valuable over and above the training of individual instructors and their application of Piagetian techniques in their own classes. It may, for example, be the case that the sharing of classes is especially beneficial for affective and social development but that applications of the learning cycle could yield equally positive cognitive outcomes when applied by individual instructors not associated with any multidisciplinary program.

Whatever one makes from the details of the evaluation data, it seems clear that a large number of instructors and students have found ADAPT useful and worthwhile. That in itself suggests that the ADAPT program - including its general orientation, theoretical underpinnings and specific methods - deserves serious consideration, not as a dogma or a cookbook for successful teaching, but as a source of ideas and techniques that maybe tried out and adapted (no pun intended) to the unique situations and needs of other institutions, courses, instructors and students.

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