Meeting Children's Needs: A Field Centered Curriculum for Mainstreaming

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ABSTRACT

Evaluated were the effects of a curriculum model combining mainstreaming and field-centered educational experiences on 201 handicapped, normal, or gifted high school students (13-17 years old). The model, studied over a 4-year period, was based on the importance of relating classroom activities to the reality of society and the advantages of combining field-centered education with mainstreaming. The Ss included emotionally handicapped, mentally retarded, legally blind, normal, talented, and gifted students from welfare to high middle class income families; and represented black, Chicano, Asian, white, and Native American ethnic groups. The program included a 6-to 8-week instructional phase followed by a 2-to 3-week field trip to selected localities. Pre-and postassessments were administered to the Ss each year, and in 1974 and 1975 were compared to control groups. Results suggested that increased performance in the cognitive, affective, and psychomotor domains was related to use of the field-centered model. (Also included are a description of the curriculum model, assessment results in tabulated form, and selected quotations and drawings by students.) (IM)
MEETING CHILDREN'S NEEDS:
A FIELD-CENTERED CURRICULUM FOR MAINSTREAMING

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The opportunity to seek, understand, and enjoy the beauty found in the environment, both natural and man-made, should be part of the learning process. In order to accomplish this, education must have affective, cognitive, and psychomotor field-centered objectives.

Meeting Children's Needs is a curriculum model designed to provide students with:

1) Field-centered educational experiences which are individualized, interdisciplinary and multicultural. These experiences may be found both inside and outside the traditional classroom. Field-centered education allows young people to relate the physical world to those concepts and relationships on which teachers commonly focus in their classrooms. This approach provides a meaningful relationship between school and the real world and allows young people a greater voice in determining their educational goals.

AND

2) Instructional experiences which provide an opportunity to observe, discover, recognize problems, experiment, and evaluate their environment both inside and outside the classroom.
Statement of the Problem:

Educators often fail to bridge the gap between those learning activities which take place in the classroom and their application to the reality of society. An institution such as the school stagnates in its practices if educators do not consistently analyze their educational function in reference to the surrounding world. Educators can imagine that the institution of which they are a part, is preparing students to fulfill the obligations of society, but by virtue of its formalization and reliance on traditional techniques, and because the society continues to develop, education may actually be preparing the students to serve the community of yesterday.

Educators have continued to discuss the unique nature of the human being and the need for designing educational systems to provide for that uniqueness. But only recently have they really made an attempt to solve this dilemma through development of individualized instructional programs. However, individualized instruction alone will not totally provide for the relevancy of school to everyday life that is so desperately needed. The relevancy of educational programs to individual needs poses a serious problem in the classrooms of today's schools. Can educational activities and experiences be designed to provide students with an opportunity to utilize and understand life situations as well as develop a broader understanding of their total environment?

Education must provide the knowledge that will help all individuals understand the world in which they live, and the effect of that world upon the way they live. Therefore, experiences should be field-centered.
This allows all individuals to develop an understanding of the ways in which man has used his knowledge to extend and to control his environment.

Educators often fail to recognize differences inherent in our society. This also contributes to the gap between the learning activities in the classroom and the real world. Social and educational problems in urban communities have caused educators to look for innovative approaches to the learning process. For example, how can educational programs build upon the student's home and community experience? The traditional curriculum in schools, for the most part, is not effective in meeting these needs.

The present multiplicity of disciplines continues to widen the gap between the learning activities and reality of society. Educators must develop program models which are oriented toward the integration of disciplines and involve to a much greater degree, community personnel and resources. The curriculum should be flexible and based on student and community needs where emphasizing the process of learning rather than just acquiring facts and assimilating information.

Taxpayers are asking for visible dividends on their investments in education. This has resulted in demands for relevance and accountability at all levels of education. Young people have also pressed for a greater voice in determining their educational goals. Therefore, educators must be prepared to meet these requirements.

**Mainstreaming and Field-Centered Education:**

Field-centered education combined with the concept of mainstreaming also contributes to students' ability to interact with other people as well.
as to their ability to cope with their handicap. By removing some of the stigma of special class placement, the student can begin to feel better about himself. As self-esteem grows, ability to relate to friends, parents and teachers in a free and easy fashion also increases. Through the process of attending school with handicapped students, the non-handicapped student also has a unique and valuable opportunity to develop accepting attitudes in regard to individual differences and to be more cooperative and compassionate.

When considering only these benefits to both special and regular students, it is difficult to dispute the value of educating all students together as much as possible. The need to go beyond merely putting exceptional students in regular classes however, is also apparent. To be effective, mainstreaming means assessing and meeting the very special needs of all students. When this is accomplished, education will enrich the lives of all students and ultimately our society.

Sample:

The sample for this experiment in mainstream, field-centered education consisted of 201 students over a four year span- 1972-1975. There were 105 girls and 96 boys representing Black, Chicano, Asian, White, and Native American ethnic groups. They were all enrolled as high school freshmen in the community of National City, California. The sample consisted of emotionally handicapped, mentally retarded, legally blind, "normal," exceptionally talented, and gifted students from welfare to high middle class income families. All students were randomly selected from the freshmen class during each of the four years and they ranged from 13 to 17 years of age.
Methodology:

A six to eight week instructional phase covering the states of California and Arizona followed the selection of students for the program. During this period the students were removed from regular classes for two hours a day and received instruction in all subject areas. Pre-assessments were administered, surveys were conducted, competency-based materials were utilized and designed to meet the specific needs of each student. Extra-curricular projects were also designed and initiated by the students to earn the needed funds for the field experience portion of the curriculum.

In addition to the basic curriculum, which was related to the locations in California and Arizona, the students were introduced to first aid, mountain climbing, desert survival, camping, and sensitivity training.

A 50 item assessment was administered at the beginning of the project and after each field experience. The pre-assessment was based upon information that could be acquired from study materials centered on the areas to be visited.

In addition to the cognitive knowledge measurements, the affective domain and the psychomotor skills of the students were assessed (Note: Selected Quotations and Drawings).

Curriculum Model:

The framework on which the instructional program was structured and for which the learning strategies were selected is a two to three week field-study encompassing visitations to and in-depth analysis of selected localities throughout California and Arizona. For example,
the field study itinerary for one of the experiences included San Diego, Los Angeles, The Coastal Corridor, The Monterey Peninsula, San Francisco Bay Area, Sacramento and the Gold Country, Central California, Yosemite and the Sierra Nevada Mountains.

In order to accomplish this:

1) The needs of each child were identified and related to goals and objectives which would provide the student with meaningful experiences in all aspects of the instruction.

During phases of planning, classroom activities, the field study, and while at each stop on the itinerary, the course design and instructional strategies were examined to ensure that students had acquired both cognitive and social skills. Other competencies relating not only to history, geography, and politics, but to economics, sociology, fine arts, earth science, anthropology, survival training, biology, photography, mathematics, English, physical education, industrial arts, homemaking and language arts were identified and employed. An awareness of our multi-ethnic, multicultural heritage was a third phase in meeting the needs of the students.

2) The students, parents, and local community were all actively involved in all phases of the program planning and implementation.

Therefore, the content, structure, hierarchical arrangement of learning experiences, instructional strategies, budget and other aspects of the total program were developed by students, parents, and teachers working together in an atmosphere of mutual trust and respect. Home visits, evening meetings, and wide use of the media
were employed to inform parents and the entire community of
the program.

3) The learning experience components in each area of
instruction were presented to the students in such a way as
to develop a real understanding of the interrelationships and
interdependence that exists between the various disciplines
that are represented in the curriculum.

This process differs from the usual learning environment in
which each course is taught independently of other courses with
very little transfer between content areas. For example:
courses such as social science, earth science, English, and
biology are usually taught separately in the traditional school
setting. The field-centered curriculum model incorporates and
interrelates these subject areas into one program of study.

4) A number of agencies and individuals were contacted formally
and their support was obtained to contribute to the program's
success.

These agencies included:

1. The local and state police departments.
2. The local fire department.
3. The local mountain rescue unit.
4. The parks and recreation department.
5. The local colleges and universities
6. The school district office.
7. Local community organizations.
Findings:

Data was obtained on students in the field-centered curriculum from 1972 through 1975 (Table I). However, during the 1972 and 1973 period a control group was not employed to statistically measure the differences occurring in the cognitive and social development of the participants as a result of the instructional strategies.

The data was obtained, tabulated, and analyzed using the following statistics: 1) means; 2) standard deviation; 3) maximums; 4) minimums; 5) ranges; and 6) t-tests, which were used as an indication of whether the difference between means was due to chance, and to what level of significance—.05, .01, .001.

In Table II the group means for the four year period are illustrated. On the pre-assessments the mean was 23.33 with a maximum of 36 and a minimum of 6 resulting in a range of 30. The experimental group means on the post-assessments for the same period were 2.06 with a maximum of 9 and a minimum of 0. This resulted in a difference of 21.27 in the mean scores from pre to post assessment periods. This was found to be significant to the .001 level. Due to the dramatic findings, a control group was employed in 1974 and again in 1975 to compare the instructional methodology of a field-centered curriculum with traditional methods. Both student groups worked toward the same instructional objectives covering the same curricula areas. The instructional period was three months in length.

When comparing the scores of the pre and post assessments of the experimental group with those of the control group for the year 1974 (Table III), the experimental group's mean was found to be .93 lower than the control group's mean. The range for the experimental group was
TABLE I

ASSESSMENT RESULTS OF STUDENTS PARTICIPATING IN THE FIELD-CENTERED CURRICULUM

1972-1975

<table>
<thead>
<tr>
<th>YEAR</th>
<th>ASSESSMENT</th>
<th>N</th>
<th>X</th>
<th>SD</th>
<th>MAX</th>
<th>MIN</th>
<th>RANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1972</td>
<td>Pre</td>
<td>50</td>
<td>22.50</td>
<td>5.70</td>
<td>32</td>
<td>6</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>50</td>
<td>1.92</td>
<td>2.12</td>
<td>9</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>1973</td>
<td>Pre</td>
<td>50</td>
<td>20.10</td>
<td>5.21</td>
<td>29</td>
<td>8</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>50</td>
<td>1.46</td>
<td>1.55</td>
<td>7</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>1974</td>
<td>Pre</td>
<td>51</td>
<td>23.48</td>
<td>5.90</td>
<td>36</td>
<td>11</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>51</td>
<td>2.54</td>
<td>2.57</td>
<td>7</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>1975</td>
<td>Pre</td>
<td>50</td>
<td>23.47</td>
<td>5.89</td>
<td>36</td>
<td>11</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>50</td>
<td>1.92</td>
<td>2.13</td>
<td>8</td>
<td>0</td>
<td>8</td>
</tr>
</tbody>
</table>
TABLE II
COMBINED ASSESSMENT RESULTS OF ALL STUDENTS PARTICIPATING IN THE FIELD-CENTERED CURRICULUM FROM 1972-1975

<table>
<thead>
<tr>
<th>ASSESSMENT</th>
<th>NUMBER</th>
<th>X</th>
<th>SD</th>
<th>MAX</th>
<th>MIN</th>
<th>RANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>201</td>
<td>23.33</td>
<td>5.69</td>
<td>36</td>
<td>6</td>
<td>30</td>
</tr>
<tr>
<td>Post</td>
<td>201</td>
<td>2.06</td>
<td>2.09</td>
<td>9</td>
<td>0</td>
<td>9</td>
</tr>
</tbody>
</table>

TABLE III
RESULTS OF THE PRE-ASSESSMENT OF THE EXPERIMENTAL AND CONTROL GROUPS - 1974

<table>
<thead>
<tr>
<th></th>
<th>X</th>
<th>SD</th>
<th>MAX</th>
<th>MIN</th>
<th>RANGE</th>
<th>df</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>23.48</td>
<td>5.90</td>
<td>36</td>
<td>11</td>
<td>25</td>
<td>99</td>
<td>.688*</td>
</tr>
<tr>
<td>C</td>
<td>24.41</td>
<td>5.78</td>
<td>37</td>
<td>10</td>
<td>27</td>
<td>99</td>
<td>.688*</td>
</tr>
</tbody>
</table>

* Not Significant.
25 while the range for the control group was 27. The t-test value showed no significant difference between the means for the two programs.

However, in comparing the results of the post-assessment (Table IV), the experimental group's mean was 4.58 lower than the control group's mean. This finding was significant at the .001 level which indicates that the students in the experimental field-centered curriculum comprehended the materials on a higher level.

**TABLE IV**

| RESULTS OF THE POST-ASSESSMENT OF THE EXPERIMENTAL AND CONTROL GROUPS - 1974 |
|---|---|---|---|---|---|---|
|   | X  | SD  | MAX | MIN | RANGE | df | t   |
| E | 2.54 | 2.57 | 7   | 0   | 7    | 99 | 18.32* |
| C | 7.12 | 4.26 | 19  | 2   | 17   |

* Significant to .001 Level.

During the 1975 year, the pre-assessment (Table V) mean for the control group was .58 lower than the mean for the experimental group. The range for the control group was 22 while the range for the experimental group was 25. The t-test value showed no significant difference between the means for the two programs.
TABLE V

RESULTS OF THE PRE-ASSESSMENT OF THE
EXPERIMENTAL AND CONTROL GROUPS - 1975

<table>
<thead>
<tr>
<th></th>
<th>X</th>
<th>SD</th>
<th>MAX</th>
<th>MIN</th>
<th>RANGE</th>
<th>df</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>23.47</td>
<td>5.89</td>
<td>36</td>
<td>11</td>
<td>25</td>
<td>98</td>
<td>.568*</td>
</tr>
<tr>
<td>C</td>
<td>22.895.68</td>
<td>34</td>
<td>12</td>
<td>22</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Not significant.

The results of the post-assessment (Table VI) for 1975 are similar to those in 1974 as the mean for the experimental group was 6.26 lower than the control group's mean. This finding was again significant at the .001 level which indicates that the students in the experimental field-centered curriculum for 1975 comprehended the materials at a higher level.

Comparative data on pre and post assessments for the 1974 and 1975 experimental and control groups tends to indicate that the instructional methodology in a field-centered curriculum allowed the students to develop a better understanding and a more in-depth knowledge concerning the interdisciplinary subject matter.
TABLE VI
RESULTS OF THE POST-ASSESSMENT OF THE
EXPERIMENTAL AND CONTROL GROUPS FOR
1975

<table>
<thead>
<tr>
<th></th>
<th>X</th>
<th>SD</th>
<th>MAX</th>
<th>MIN</th>
<th>RANGE</th>
<th>df</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>1.92</td>
<td>2.13</td>
<td>8</td>
<td>0</td>
<td>8</td>
<td>98</td>
<td>17.88*</td>
</tr>
<tr>
<td>C</td>
<td>8.18</td>
<td>3.98</td>
<td>19</td>
<td>1</td>
<td>18</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant to the .001 Level.

Conclusion:

Some of the major goals in today's schools include self-motivation, self-direction, personalization of instruction, and relating the curriculum to the reality of society. The field-centered curriculum for mainstreaming appears to be one way of achieving these goals.

It is difficult to state with total assurance, however, that the field-centered model is indisputably superior to current forms of schooling. As measured by the assessments of cognitive, affective, and psychomotor domains, the results show a general increase in performance.

Evidence needs to be accumulated over a number of years and the model needs to be replicated in other school settings and with various
age level groups to validate these findings.

The field-centered model is a viable alternative to the traditional classroom as long as it is viewed as an intelligent quest, and an imaginative search for better ideas with which to improve the process of education and facilitate the integration of the handicapped student into the world of reality.
SELECTED QUOTATIONS AND DRAWINGS

BY STUDENTS
It was fun being with your friends, enjoying yourselves and being able to learn at the same time.

I can’t imagine camels in a green place like Fort Tejon. They should be out in the Mojave somewhere.

Hearst Castle was beautiful. I wish I could have lived there. But with all the taxes today, I see why they moved out.

Walking around San Francisco at night is creepy. The atmosphere has a scary feeling to it.

The trip was great up until the time when we had to come home.

"I wonder where everyone went?"

"¿Quisiera saber a donde se fueron todos?"

I prayed for callous pads, foot spray, corn pads - anything to recover my feet.

Pismo Beach was great! But I didn’t enjoy the sandcrabs in my sleeping bag.

It’s a terrific way to learn. To bad we can’t do it all the time.

The prickly pear cactus apples were good, except I got some stickers in my tongue.
I was very scared and I even wanted to sleep on the bus because I had never slept out in the open before.

We were taught how to do and use things we never would have thought of in a classroom.

La Purisima was great but the lemon verbena and the ceanothus really impressed me the most.

Wow!!! The Gold Country was fantastic.

The days have gone by fast, the trip is soon ending. I wish it wouldn't end.

Catching a cable car was fun. Hard too.

Finally we left, I couldn't believe we were going. I thought I was dreaming so I pinched myself real hard and found out that we had really left.

At the La Brea Tar Pits, just before a Jewish rally, an elderly Jewish lady thought Aurora said we were from the "National Socialist" instead of from National City.

"According to our map, the Golden Gate Bridge should be right under us."

"Segur nuestro mapa el puente de oro debe estar bajo nosotros."
I love Japanese things and I felt so good to be in the midst of the Japanese people and stores.

Dinner at the Basque Hotel tasted real good until we found out what we were eating. It was good anyway.

When we were getting ready to leave I was like a little kid that couldn't wait to open the Christmas presents on Christmas Eve.

Last night a fury friend came to visit while we were asleep.

When we called "Supper" It was like calling a bunch of wild bulls.

"Now students, what are some of the unusual things that you notice about these great trees?"

"¿Qual es son algunos de los cosas pares que notaron de estos gran arboles?"

Solvang, What a heavenly place! If I lived here I would probably be a big roly-polly girl. The pastry was so fresh and delicious.
On the way home all of us said good bye to each other. As we drove down familiar streets we sang our school songs and were excited to see our families. But we were leaving a family too!!!

"Gee! Another beautiful day for travel!"

"Ay! Otro dia hermoso para viajar!"