

Assessment and Improvement of the Program for Severely Emotionally Disabled and At-Risk Students

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Abstract

A pilot program on Electrical Wiring for Building to serve the At-risk students and Computer-Aided Design to SED students is running under the joined efforts of Miami Dade County Public Schools System and Florida International University. This paper will review the admission criteria and teacher selection, the improvement, the assessment related to its objectives.

Key words

At-risk students, SED students, vocational education, training

1. Introduction

No children shall be left out. Education providers shall offer facility and programs to cover a wide spectrum of needs in our educational and training pipeline. However, the needs of some students cannot be fulfilled due to limitations on school budget, number of teachers, restriction on curriculum etc. Students classified as Seriously Emotional Disabled (SED) and At-risk are two examples. The SED and At-risk students are a population that has a very low rate in graduation and employment. The mentality of them is often influenced by financial and social disadvantage of their families, which are aggravated as they grow up. Besides, a lack of proper working skills makes them almost impossible to change the situation in later of their life. All the above render them with low self-confidence, low self-esteem, and many other negative characteristics.

The issue about SED and At-risk students is not just local but nationwide. The regular curriculum and normal way of classroom teaching do not fit their needs. Special curriculum, learning methods and environment are required to help them reach their learning goals at school. Through our several years' observation and study, it has been found that many of them show interest and talent in drawing, art work, crafts, etc. A

program tailored to their talents has been developed to serve this group of students in the past several years. This program has well defined goals to achieve. They are to restore the students' interest in learning, to attract their attention in learning, to help them be creative with achievable goals, to aid them to gain confidence and self-esteem, and to provide them with technical skills to meet future employment requirements.

A pilot program started with Electrical Wiring for Building was developed through the joined efforts of Miami-Dade County Public Schools System and the College of Engineering at Florida International University nine years ago to serve the At-risk students. Today this program has been expanded to include severely emotionally disabled students. Containing 5 different sections with two subjects of Electrical Wiring for Buildings and Computer-Aided Design, this program is delivered at two different high schools in Miami-Dade County. This paper will review the admission criteria, teacher selection, the improvement in curriculum, the assessment related to its objectives.

2. Program Objectives

The program currently enrolls two types of students: At-risk and SED students. These two types of students have the following characteristics.

A. Academically At-risk students show the following [1, 2]:

1. difficulty with the English language and lower grade in mathematics for one or more years,
2. excessive school absences for a period of at least three months,
3. excessive class cuts for a period of at least one month,
4. classroom disruption for a period exceeding one month, expressed as blatant disregard for the rights of others in the classroom and/or unjustifiable defiance of authority,
5. manifestation of inappropriate behaviors, interests or aptitudes that would make success in a typical school unlikely.

Other behavior characteristics are:

1. high potential for violence
2. serious drug or alcohol abuse
3. six or more months of voluntary truancy
4. psychotic or pre-psychotic behavior
5. bizarre, unprovoked or irrational behavior of emotionally disturbed student

B. Severely Emotionally Disturbed students have the following symptoms. [3]

These students are emotionally handicapped and exhibit one or more of the following characteristics, to the extent that he/she is unable to take advantage of or participate in the regular education program:

1. inability to learn that cannot be explained by intellectual, sensory, or health factors
2. inappropriate types of behaviors or feelings under normal circumstances.

3. general mood of unhappiness or depression
4. tendency to develop physical symptoms, pain, or fears associated with personal or school problems
5. unable to build or maintain satisfactory interpersonal relationships with peers or teacher
6. a variety of excessive behaviors, ranging from hyperactivity and aggression to severe depression and withdrawal.

After understanding the learning disadvantages and the psychological needs of the targeted SED and At-risk students, we have developed the program to address the needs by improving their quality of life with technical skills for employment, and equipping them with better tools to achieve the Sunshine Standards requirements for graduation.

The objectives of this program are:

1. to increase literacy and numeric skills as measured by State of Florida and local standardized assessments
2. to improve student attendance
3. to improve student graduation rate
4. to improve student self-esteem
5. to obtain technical skills for future employment requirements

Based on the objectives and the needs of local job market, two separate curriculums have been developed and implemented at two high schools in Miami-Dade County:

1. Electrical Residential Wiring
2. Computer Aided Design

3. Admission Criteria & Teacher Selection

Prospective participants for this program are carefully selected prior to the academic year. The criteria used are to rule-out students who have had within the prior 12 months any of the following:

1. psychotic break-down
2. hospitalization due to a psychiatric condition
3. any students who is presently taking any anti-psychotic medication
4. student who have a pending felony charge
5. students who have been classified as having a severe conduct disorder

Students were selected to attend the program based on an interview and standardized test scores, as well their present psychological functions. The majority of the students in the program are those who have achieved scores within the level 2 range on the FCAT annual assessment. The selection process is comprised of an application and interview of the student by a panel of teachers and the SED psychologist. Students from Severely Emotionally Handicapped and Emotionally Handicapped programs of Hialeah Miami Lakes and Barbara Goleman high school have been selected in the past 5 years and have worked in the program.

To make the program be effective and successful, the selection of instructors is also critical. With consultation of the program psychologist, the candidates for instructors of the program are searched and screened with the following criteria:

1. The teacher must be confident, so the control in the classroom is achievable.
2. The teacher must maintain a continual, gentle, and respectful sense of humor as well as a sense of fairness.
3. The teacher must keep the classroom well organized and the lectures and projects attract students' attention and interest.
4. The teacher should be able to educate students to understand that they hold accountability for their actions at all times. This is usually a new concept for this population. It is the pivotal point in educational therapy.

5. Program Improvement

Currently, both Electrical Residential Wiring and Computer Aided Design [4] disciplines are offered at Barbara Goleman Senior High School. And another two sessions of Electrical Residential Wiring are offered at Macarthur Senior High School. The program runs through the entire school year, Monday through Friday from 7:30 a.m. to 11:30 a.m., which covers two time-blocks every morning. Each discipline accommodates 5 to 8 students in each time slot. Eligible students participate in over 360 hours of quality, individualized instructional time throughout a curriculum infused with hands-on pedagogy. Parental support and participation in their children's learning is maximized through visits to the program and special workshops.

Although both disciplines have a fixed curriculum to follow, at the end of each academic year they are evaluated. After the evaluation, the project PIs meet with the instructors and the school Psychologist to assess the curriculum and the performance of the students. Then possible actions of improvement will be proposed to enhance the program for the following year. The PIs of the program will oversee the implementation of the changes.

In the past two years, two major improvements of the program have been taken. They are

- (1) increasing the portion of mathematics component, and
- (2) adding communication skill

The evaluation of student performance shows that the students in this group were afraid of math and lack of confidence in basic math skills. Instead of telling them how important the math is, we embed math in the drawing, and measurements to show how math can be used to help them find solutions in practice. Examples include calculating angles, areas of a given region, scaling in floor plan drawing, maximum load of a circuit, etc. Another issue has been identified is that they are weak in the development of interpersonal relationship and lack of communication skill. To make improvement on this issue, we added team projects to the program. For different project we encourage them to team up with different members in the program and at the end of project they have to make a short presentation and submit a short report to practice both writing and oral skills.

6. Program Assessment

Since the program has clearly defined objectives, we should evaluate the program based those objectives. The results are shown in the following Table.

TABLE 1. The Assessment Results of The Project [5]

Project Objectives	Outcomes (2006-2005)	Outcomes (2005-2004)
to increase literacy and numeric skills as measured by State of Florida and local standardized assessments	3 students passed FCAT. 2 students continue their education in college and professional school	7 students passed FACT 2 students continue their education in college and professional school
to improve student attendance	87%	80%
to improve student graduation rate	2 students will graduate in 2006 (most students are in 9-11 grade)	7 students will graduate in 2005 (most students are in 9-11 grade)
to improve student self-esteem	1 student on the Superior Honor Roll 1 student on the Principal's Honor Roll	N/A
to obtain technical skills for future employment requirements	5 students have or will have either part time or full time employment with local companies	5 students have full time employment

7. Conclusions

Through the joined efforts of Miami-Dade County Public Schools System and the College of Engineering at Florida International University, we have developed and implemented several technical programs at two high schools: Barbara Goleman Senior High and Macarthur Senior High, in Miami-Dade County. These programs have shown a significant reduction in student drop-rate and an increasing in successful employment of these students by many companies as technical personnel. Surprisingly, more than 20% of the graduates are taking college or professional school credits. The need to help SED and At-Risk students exists in every school district across the nation. We would like to disseminate the news of the success of these programs and to establish a network to serve these students in need. Also students with other learning disadvantage can be benefited from similar program based on the same concept.

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