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SELF-PACING, INDIVIDUALIZED INSTRUCTION: AN OVERVIEW

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Introduction

During the last fifty years, education has been in a flux due to continuous technological changes and greater interaction on the societal scene. As a result, developmental education practices have been the subject of controversy. Schools have been called upon to maintain their conservative, traditional role, yet, they are expected to continue with innovative ideas which will provide a quality education for all students regardless of their academic or socio-economic level. The stability of education at the local, state and national level is dependent on the maintenance of long-established customs; whereas, the progress of an industrial society demands constant experimentation so change can occur.

If change is going to happen in school systems, the aims and goals of the schools will require some redefining. Some schools' philosophy statements may need rewriting. We must see that teachers are capable of helping every student deal with their social, ideological and physical environment. As has been stated by the Committee for Economic Development,

"It is not the task for schools to provide final solutions for all problems, but rather to equip their students to face life's problems intelligently and effectively. The end result of competent instruction should be a desire and respect for knowledge and possession of the skills essential to getting and using knowledge." (3)

The teacher, is the director of the classroom who guides students learning. During this process, students are asked to bring their background to class so they can use it to help acquire and grow cognitively with the information being given. To accomplish real learning, teachers cannot afford to present sterile, lifeless, dull, and quickly forgotten information, which is so often crammed into the minds of the students who are captives in so many classrooms. Rather, real learning is represented by an insatiable curiosity of individuals which drives them to read and absorb everything they can about a subject in order to make it a part of themselves. The only person who is really educated is the one who has learned how to learn; the person who has learned how to adapt and change.

Instructional methods commonly employed in the classroom today are normally "teacher oriented." There are also various applications of "individualized instruction" or "self-paced instruction" being used. The

former method differs from the latter method in that it allows for little student control of learning and definitely limits students' decision-making as far as the rate of learning is concerned. The student is structured into materials that are based on the teacher's discretion and goals. The students' study program is basically the result of teacher domination and with this method, individual differences usually are not taken into consideration.

Individualized Instruction

Individualized instruction is an organizational and instructional change aimed at the individual. The idea of individualized instruction is, however somewhat nebulous because it has a different meaning to different people. This is exemplified by the following definitions of individualized instruction. (9)

1. "The student studies on his own, works at his own rate and is directed by the teacher in specific materials. There are opportunities for the student to work on individual projects and individual differences are taken into account."
2. "Individualization is a teacher assisted, self-pacing program in which the student is given the time and modified instructional materials needed to attain his or her goal."
3. "Individualization is an effort to meet students needs by allowing variations in student pace and material covered. Rather than aiming at the average student, it is an attempt to provide challenges for the good student and achievement for the less capable student. The first step in individualization is to recognize that every student cannot and should not be forced into the same mold."

The committee for Economic Development (3) discusses individualization of instruction as follows:

"We are especially concerned with the problem of equality of opportunity in education. In a free society, equality of educational opportunity is a basic ideal. . . . The individual's schooling is the best gateway to a satisfying, productive life, and full education is the best hope for a just society. Whatever else is done to promote full educational opportunity, there must be a maximum effort to achieve more individualization in instruction. By individualized instruction we do not mean simply tutoring procedure. We mean instruction that is designed for the individual student rather than for the entire class.

Even though definitions of individualized instruction vary, they do support the idea that individualized instruction is one teaching model derived to meet the needs of students' learning.

Based on the learning capabilities of the student, individualized instruction allows the teacher to teach the student, not the class. In fact, the teacher may have thirty classes of one student where a variety of teaching models may be used. One of the most fundamental requirements, however, for maximum intellectual development for any individual is to allow pacing so that their different abilities and educational backgrounds may be enhanced. A most prominent feature of self-pacing

instruction is that it provides the student an opportunity to experience success, an opportunity to stay on task, an opportunity to alter his or her learning behavior. This usually gives each student a feeling of self-confidence and esteem. This sense of self-worth, then, greatly affects their level of aspiration, a feeling of achievement which sets the stage for further progress in learning and ultimately, more successful experiences.

While self-pacing tends to be a plus for this teaching model, it must be clearly understood that there are other facets that must be considered. Barnett (1974) has suggested that teaching styles should match the cognitive styles of the student. (15) Many students that tend to be memory oriented or as Witkin (1962) identifies as "field dependent," don't fair well with unstructured classroom situations. This is not to say that self-paced instruction can't be highly structured. It can and in many cases, it is.

Personalization of Instruction

Another powerful influence for learning by a self-pacing model is the personalized interaction between the student and the teacher, which is a most important feature of the learning environment. The lecture in a traditional classroom can promote an impersonal atmosphere. Educational efficiency experts maintain that the class recitation provides the maximum teacher-student contact in the limited amount of time available for each class. The contention is that the teacher is contacting the total class simultaneously. While teachers and students are interacting in this type of instruction, it is generally a low level of interaction. Students need to feel the teacher is concerned about them personally; that they are important and merit some individual attention.

A teacher who can successfully personalize interaction with a student is in a position to exert a favorable influence on that student and can effectively direct the educational activities without resorting to any external pressures. Pacing of instruction allows for such personalization to occur.

Self-Pacing

Self-pacing is the ultimate feature that enables each student a chance to be successful. Through self-pacing, each student has the time needed to reflect, review, and study student oriented material.

With self-pacing, individualized instruction tends to remove the threat that capable students place on slower students, when they are in direct competition. Pacing can, in fact, give many students a chance to show they can succeed in academic endeavors, thus substantiating Carroll's view as well as that of Bloom and others, namely, given enough time, anyone can be successful with learning.

Evaluation and Communication

At *all* times, regardless of the teaching model used, communication lines must be kept open between the student and the teacher. In fact, continual feedback to the learner is one of the essential ingredients for successful application of individualizing learning.

If pacing is to be meaningful, students must know that their work will be evaluated according to the work that has just been completed and in accordance with their abilities. If there is evidence that pupils are evaluating themselves and that the teacher's evaluation is based on each individual's growth and development, the teacher can be considered an individualizing teacher. However, if each pupil passively accepts the teacher's evaluation based on predetermined standards, individualization of instruction is probably not first in mind.

Value of Individualized Instruction

Data has been collected to determine the worth of self-pacing, individualized instruction, Kelly (9), May (14), Hirsch (8), Cooms (4), and Littlefield and Gatta (11) indicate with their research that individualized instruction is an effective means for learning and should be considered a viable teaching model along with the other models of teaching.

Most students, regardless of their socio-economic or academic backgrounds can be successful with self-paced, individualized instruction. Marchese (13) was able to make four general conclusions which sum up the value of self-pacing individualized instruction. He stated that:

1. "Individualized instruction provides an environment for greater student participation and acceptance of responsibility."
2. "Individualized instruction provides an increased ability for the student to evaluate his own progress."
3. "Individualized instruction attains just as much, and sometimes more, learning of subject matter."
4. "Individualized instruction seems to produce a more positive attitude towards the students themselves, the school and the subject."

The highlight of individualized instruction is that it offers another teaching model in the field of education. Although individualized instruction is not the total answer to all teaching problems, it is highly effective in the information acquisition phase of learning.

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Declining Birthrate

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Iowa State Health Department records indicate a steady decrease in the number of babies born to teen-age women. From 1971-1979, there was a 20% decrease in babies born to women under the age of 18.

The reasons for such a decline are uncertain. There is little, if any, evidence to support the idea that the decline was due to abortion. Family planning clinics may have helped stem the rise of unwanted teen-age pregnancies and it is hoped that the introduction of sex education in schools helped alleviate the problem. At any rate, Iowa youth need the continued support and guidance of parents, churches, local school boards and teachers through this critical phase in their lives. Though such co-operative efforts, unwanted teen-age pregnancies should continue to decline.

Des Moines Register, (Jan. 25, 1981). *All Time Low Infant Death Rate in Iowa* (p. 1); *Fewer Babies Being Born to Teen-agers* (p. 9A).