Sacta-Rashi Foundation

Ministry of Education - south region

draft

Tafnit (swerve) ↗↗↗
In cooperation with Day Boarding Schools and Madarom

Guidance and pedagogy

Tafnit (Turnaround) ↗↗↗

A determined and holistic approach for narrowing learning gaps, preventing of dropping out of school and increasing scholastic success.

Results and rates of success at math matriculation exam 3 units 2002/3

Accelerated learning for Matriculation 11th grade students Kseife and Tel Sheva

August 2002

Part 1 – target, target population, participating schools and results in general.

A. Target population

48, 11th grade students of two high schools in Kseife and Tel Sheva (24 each), that according to school estimation will not pass the matriculation math exam. The students, fail mark in math and three more fails marks in general. Their success in the math exam will significantly improve, so the school estimates, their prospects at acquiring matriculation.

1. Target

48, 11th grade students from Kseife's and Tel Seva's high schools, will experience scholastic success, will internalize the importance of studying, and will successfully pass the 3 units math exam.

2. Mapping and choosing the students.

The target population was determined together with school's principals, and Students were chosen after mapping all 11th grade students in those schools.

Table 1 – participating school, number of students participating, number of dropouts

And rates (%) of success in math exam, and average final marks.

Schools	No. of students at beginning of project	No. of students finishing the project	No. of students actually examined	Rate (%) of success	Average Final mark at the exam
Kseife Comprehensive High school	24	24	24	100%	87
Tel Sheva Comprehensive High school	24	24	24	100%	92
Total	**48**	**48**	**48**	**100%**	**90**

Part 2 - method

2. a. The method of accelerated reduction of gups (intensive learning) – summary.
Out of recognition the importance and implications of acquiring education in general and matriculation in particular, regarding one's happiness, occupation, and future stratum position. And regardind school's and town's image and future, this method was developed. The method is giving a non-orthodox reply to the need to increase scholastic success and fulfillment of personal potential, mainly among population of students with perception of "beeing unabel" as a result of increasing and accumulating failures at school in many

disciplines (these students are beeing placed by school mechanism in lowest tracks or chanelled out of school), or in one discipline or few (for those students whom are placed in relativelly more prestigious tracks). Among these last, one of the disciplines students and schools alike point out to be “arduous” and considered as an obstacle on the way to acquire matriculation diploma, is mathematics.
“Success for all” is a program working in the U.S.A. and it’s academic and philosofic source is the work of Prof. Slavin et al (1986). They argue that every child, unless retard, can study and achieve impressing achievements. Some need more help or different attitudes than others, but one way or another “every child can succee in school”.
The same approach is presented and operated by Sizer (1994), Henry Levin (1984) etc. in their schools.
Our approach leans on another assumption, one which argues that all people, including children are using, routinely, only minimal part of their cognitive potential they actually possesses. That fact means that by increasing the “low achievers’ ” motivation dramatically will lead them toward significant achievements. At the same time, we argue, success in school in general, and in matriculation exams in particular is whithin the cognitive ability of every person, lest retard.
Hern (1990) concludes that the main reasons for scholastic failures are basicly non cognitive and can be roughly divided to two:

1. inner-school factors – tracks, labeling grouping etc.
2. outer-school factors - factors that school tend to regard them as such, it has no influence on them, and are connected influence of “significant others” – parents, relatives, neighbors, peers; or emotional reasons origine in student’s personality.

“Intensive learning” method in its principles, practice and structure, gives complete holistic answer to the factors mentioned above, and leans on the motto: “everyone is able”. Nonetheless the method deals first with consciousness, which claims “not able”, and which the student, her or his family, teachers and others are all locked in.

The false consciousness about scholastic ability and “intensive learning” as a tool for liberation.

Most of the students whom are cald “under achievers” or any other definition (in one or many disciplines) are cought in false and deceiving subjective perception by which their ability to attain impressive marks, is low. False perception such as this developed in a process along their school career in which they accumulated failures through low marks in Quizes, exams and in school evaluation reports. Usually, following that, the students were chaneled to low groupings and tracks where “low” curriculum “signals” low expectations. Such “false consciousness” of these students is transferred in circles to friends and peers, parents, teacers staff, school heads etc. So there is a development of symbolic-interactionist process, such that the relevant student have nearly not influence at all, and it is running in a “magic circle” getting stronger with any accumulated failure.
This subjective consciousness in which the “under achieved” student is cought captive is contradictory to school demands from him/her to fit in the “student” role and to achieve high marks. Such contradictory creates cognitive dissonance. In order to fix such dissonance the student rationalize his failures and express it in non-conformist behavior or by declaring that studying (or speciffic subject) is irrelevant or not necessary.
TO conclude – In order to lead such students to significant success, one should “shatter” first the “false consciousness”. Change of that kind is made by leading the student to success and achievments according universal criteria, in the shortest time table possible, in which the correlation between investment and hard work in one hand and success in the other hand is clarity. To illustrate the last concept: The project students in all comprehensive schools in Beer-Sheva learned in “intensive learning” from beginning of Mars 1993 about 45% of math matriculation exam curriculum in not more than three weeks

(90 hrs.), ending that period with an exam written by external (to the project) experts. The marks were remarkably high.
Same process took place in former years in Beer-Seva and in Yeruham (where the rate of matriculation diploma acquierers increased from 19% to 57% in 1996) and the metod is embedded since.
Another project which uses the same method is “Ometz” project that accept 9th. grade students with 7-8 Fail marks, and reach within three years full matriculation diploma.
Before and during that learning an holistic motivational process is taking place which involove major part of the student’s significant others – parents, peers, teachers , school heads etc.
After the stage of consciousness change, build on sequence of meaningful successes, one can move to less accelerated learning but keap on giving full and continual answer to emotioal needs and keaping the chain of successe accumulating in relevant and challenging program.

2. b. Principles of "Accelerated Reduction of Gaps" (Intensive Learning) method.

"Intensive Learning" is a small scale structural change made by establishing small and new organization (in school) that operates "holisticlly" according to the following principles:

- Previous motivational process – at individual and group level –students, parents, teachers, school heads and community representatives.
- Motivational process during the learnung process and at the end of "Intensive Learning".
- Focusing at one subject (dizcipline) or smaal number of subjects.
- Curriculum – very Pygmalionian (not forgiving) and relevant.
- Instrumental target – clear, measurable and agreed.
- The lenth of "Intensive learning" period (first and second each) up to 4-6 weeks.
- Accelerated teaching.
- Determination (vigorousness).
- Routine "breaking" and "dramatization".
- Changing of studying environment.
- **"**Combining circles" of "significant others".
- Making successes public knowledge.
- Target oriented thinking and teaching.
- Flexibility and change as a norm.
- **"**Not-alone" support and leading by the leader (coordinator), and studying and targets are collective.
- Work as a group - cooptation and group sessions.
- Constant follow-up (strict "dynamic mapping" daily and periodical.
- Constant and determine reduction of gaps.
- Simultaneous learning and exercising – no homework.
- Reduction/canceling anonymousity – smaller learning groups.
  - Focusing on one or few subjects.
  - Foreman – "significant other" with larger scale of employment and "diffusive" relations with the students.
  - Personal and "diffusive" intensive interaction between teachers team and students.
- Daily success from day 1 (success tests).
- Team work – coordinator, teachers, co-teachers.
- **"**Personal flexible time" and differential investment in tha studends.
- Constant external control of scholastic success.
- Checks along the process of performance of targets and corrections when needed.

- “Leader” and “leadership” based on coordinator and heads of school.

Part c – mode of operation, results and marks in math matriculation exam.

- In each school a coordinator was trained.
- In each school students were mapped and according 24 students were chosen to determine the target population.
- In each school “intensive learning” was operated at about 187 hours between Mars and June.
- Study marathons operated at each school before the 60% exam and before the math matriculation exam.
- The marathons held two days in a row between 8.00-23.00, each time.
- Kseife’s High held his marathons at a youth hostel in Arad.
- Tel-Sheva’s High held their marathons at a recreation center in town.
- The curriculum included 100% of the requirements for 3 units math matriculation exam.
- Teaching team of each school was based on the school’s teachers except one teacher. Two co-teachers were themselves teachers from school and other two were university students from town.

Table 2 – results and grades math matriculation exam.

Tel-Sheva's High							Kseife's High							
	2 units			1 unit			2 units				1 Unit			
Final 3 units matr' mark	Final mark 3 units	exam	School mark	Final mark	exam	School mark	Final mark 3 units	Final mark	exam	School mark	Final mark	exam	School mark	No.
98.4	98	96	100	100	100	100	98.3	98.5	97	100	97.5	100	95	1
98.4	98	96	100	100	100	100	88.2	86.5	88	85	95	100	90	2
86.8	83.5	87	80	100	100	100	97	97.5	95	100	95	100	90	3
98.4	98	96	100	100	100	100	70.5	70	70	70	72.5	75	70	4
87.2	84	83	85	100	100	100	67	62.5	55	70	85	100	70	5
86.8	83.5	77	90	100	100	100	93.6	92	84	100	100	100	100	6
98	97.5	95	100	100	100	100	91	92.5	95	90	85	100	70	7
84.3	81	77	85	97.5	95	100	79.2	74	68	80	100	100	100	8
98	97.5	95	100	100	100	100	94.2	94	88	100	95	100	90	9
84.8	81	77	85	100	100	100	93	95	90	100	85	100	70	10
79.6	74.5	69	80	100	100	100	81.1	81	72	90	81.5	98	65	11
92	90	95	85	100	100	100	68.4	63	46	80	90	100	80	12
90.4	88	76	100	100	100	100	94.8	93.5	97	90	100	100	100	13
98.8	98.5	97	100	100	100	100	87	85	85	90	95	100	90	14
96.8	98.5	97	100	100	100	100	92	92.5	85	100	90	100	80	15
96.8	96	92	100	100	100	100	88	85	80	90	100	100	100	16
80	75	80	70	100	100	100	88.4	88	81	95	90	100	80	17
98.8	98.5	97	100	100	100	100	96.2	96.5	93	100	95	100	90	18
77.6	72	64	80	100	100	100	90.4	88	91	85	100	100	100	19
98.8	98.5	97	100	100	100	100	84	82.5	95	70	90	100	80	20
94.8	93.5	97	90	100	100	100	91.2	89	78	100	100	100	100	21
98.4	98	96	100	100	100	100	86.4	83	76	90	100	100	100	22
96.4	95.5	91	100	100	100	100	82.6	82	74	90	85	100	70	23
98.8	98.5	97	100	100	100	100	88.4	88	81	95	90	100	80	24
92.46	**90.7**	**88.5**	**92.9**	**99.9**	**99.9**	**100**	**87.1**	**85.1**	**81.8**	**90**	**92.3**	**98**	**86.6**	**average**
	4.4	**Difference between school's mark and final mark**		**0.2**			**8.1**	**Difference between school's mark and final mark**			**11.3 -**	**Difference between school's mark and final mark**		