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## TRACING AND ASSESSING THE STUDENTS' PROGRESS USING THE TEACHING METHOD – DALTON PLAN

The article investigates the methods to follow the students' progress in studies used in Helen Parkhurst's teaching method, the Dalton Plan. It researches the peculiarities of graphs, as well as the use of various tests, individual and group lessons. In the article we also analyze the problem of grading students when using the method of individualized instruction.

**Keywords:** teaching method, assignment, graph, test, conference, assessment, laboratory.

**Defining the problem.** Creating her teaching method Helen Parkhurst intended to equalize the pupils' individual difficulties and to provide the same opportunity for advancement both to the slow and to the bright children [9, 13]. One of the ways to achieve this goal was the elimination of the time table and thus she rejected the traditional lesson-based school system. The class division was preserved, but it was somewhat formal and was used to track the students' achievements, as well as, it was helpful when organizing a conference (it should be kept in mind that teachers used the conferences to introduce new topics, make clear the difficult moments, as well as they were the opportunity for the children to present their own projects, give speeches etc.). At some schools conference was actually the name for a regular class. For example, Lucile Douglas states that at the composition conferences the teacher meets the whole class (she describes the use of Dalton Plan for teaching English) and there special points may be taken up, and instructions may be given much as in the old way [3, 339]. As a rule, the class as a whole considers only matters concerned in the minimum contract, except when reports to all the class are required from pupils desiring credit in advanced contracts, for one of the essential qualities for a pupil targeting at a more than minimum credit is self-reliance [7, 667].

At these conferences the teacher gets a weekly report of the progress of each pupil [2, 549]. And here the graphs turn out to be very useful. There was

created graph system in order to give the students opportunity to see their own progress. But under the new system it was extremely important to detect any problems children could have while studying.

Analysis of the latest investigations and publications. Dalton Plan is a method still used in one of the New York schools nowadays. In the first half of the twentieth century there were numerous adaptations worldwide. The changes the plan underwent (which were numerous due to the fact that it is not a fixed system, but something that can and should be adopted to the peculiar needs of a school, children and teachers) were highlighted by the teachers who were implementing the plan. Thus, Mary Hargrave describes a situation when only the English department of her school was daltonized, so the time-table limit was preserved [5]. Lucile Douglas and Margaret Durkin provide with the basic outline of the plan as well as give some details on teaching English and English Literature [3, 4]. Margaret Durkin also researches introduction of the Dalton Plan to students aged seven – nine [4]. Raymond Maronport pays attention to various methods of individualized instruction and researches the unit-assignment thoroughly [8]. W.D. Bowman gives a review of The Dalton Laboratory Plan by Evelyn Dewey highlighting all the advantages of the method. Janet Baird researches the modification of Dalton Plan implemented in the South Philadelphia High School for Girls and the ways they managed to follow students' progress on condition of large classes [1]. In the Mathematical Gazette are discussed the pros and cons of teaching mathematics under Dalton Plan [6]. Though there are numerous works on the Dalton Plan, somehow the aspect of advancement control is not fully discovered and requires further research.

Highlighting earlier unsolved parts of the general problem, which the article is devoted to. The control after the process of education is quite important and this aspect of the method has not been fully investigated. Moreover, it is important to research the solutions of the assessment problem applied in various adaptations of the method both in the USA and abroad.

**The aim** of this article is to investigate and analyze various means used to trace the students' progress as well as to research different approaches to measuring the advancement of students, used in various implementations of the Dalton Plan.

So how does the process of evaluation go? Under the Dalton Plan students complete contracts, these are the core of the Plan. To show all the assignments in all subjects as a whole they are presented in the form of a single contract, and the progress is marked with the help of the weeks of the work done. Altogether a child is supposed to get as many credits as would correspond to the number of recitations his ordinary program would include, but these may be in one subject, if his interest that day has been centered upon one branch of his studies [3, 337].

Each assignment sets forth the work which every member of the class is expected to accomplish in a subject in a school month. It is further subdivided into weekly periods of five days each – a day's work counting as one unit. Thus, pupils are able to measure and record their own progress [4, 257]. In some experiments, teachers laid out both the minimum tasks the students had to complete and additional choices, if children wanted to go beyond the basic content and skills. The more tasks students chose to do and the better they did the work – as measured by written reports – the higher were their grades. The method does entail an enormous amount of correcting and marking the written work upon a teacher. Another interesting moment is that students were expected to revise unsatisfactory work until they mastered the content and completed the terms of the contract. Sometimes the students failed not because of the lack of diligence, but rather due to the fact that they had not mastered what was studied before. Mary Hargrave also describes a pretty interesting practice, when in order to eliminate failures caused by insufficient mastery of previous knowledge a diagnostic test is given to help each pupil rate himself. All who make high grades on this are excused from the grammar review and may do any one of a variety of things (it was used when teaching English) [5, 376]. To follow the students' progress Margaret Durking suggests that teachers might require that all books be handed in once a week and they might also make use of the time, when students are occupied in laboratories or are doing some oral work. Another variation is selecting pupil helpers out of the best students done by one of the teachers in Jewish Girl's School in London [4, 265 – 266].

Another way out according to Janet Baird, were the very assignments which also functioned as a supplementary guide. These were developed to help to increase the pupils' ability to help themselves giving individual help that the teacher of large classes could not give. In other words they supervised study [1, 706]. Large charts recorded the progress of individual students [11, 95] and Blandford Jennings describes a version under which students were presented with the core material first. Completing it all successfully provides a D – grade, then for those willing to get C – one needs to complete another portion of tasks, B – requires both D and C assignments as well as some new are added, and to obtain an A – all the previous tasks together with some new ones should be due [7, 664 – 665]. In the Mathematical Gazette again we find the idea of graded assignments, where the lower grade is within the range of the slowest girls and must be done by all. It should be kept in mind that neither middle nor higher grade may encroach upon the next assignment, for that would mean the inevitable failure in the future for those not taking the more difficult tasks [6, 201 - 202].

In conferences, individual lessons or some group meetings appointed by the teacher when student presents some home assignment, it is corrected and criticized and if it needs to be revised or re-written, the pupil departs with admonition fresh in his ears and corrects and returns his work immediately. His interest is kept from cooling by his desire to win the unit of credit which he likes to see marked on his graph [3, 339].

System, under which children themselves choose when and what to study, they mark the fulfilled tasks themselves, needs control on the side of a teacher, for even gifted students often are unable to divide their time well. Helen Parkhurst explains that at the beginning, pupils were given a daily diary, where they marked the progress in each subject before leaving any laboratory. These did not fit the purpose and were inconvenient. On the other hand, frequently, pupils, who were working steadily, were behindhand with their contract job at the end of the week [9, 134]. The problem of making sure that a child is not only working steadily but making the necessary progress is quite acute when using methods of individualized learning. So, for such pupils, unable to divide their time properly, it was a simple matter to make a program that required them to report in certain laboratories at certain periods [2, 549]. And that also was the primary reason for the development of graphs. Because of this Helen Parkhurst suggested that students should make their own timetables, and they should devote more time to the weaker subjects. Students were often apt to devote too much time to their favorite subjects [9, 40 – 43]. Describing an adaptation of Dalton Plan Lucile Douglas tells about the experiment, under which during the first fifteen minutes of the school-day the pupils went to their class advisers, teachers to whom they were especially responsible. The adviser talked to the pupils together about their plan of work. He did not advise work in his own subject particularly, he discussed the 'job' as a whole and helped the pupil plan the day's activities. The work of the previous day was checked up, and ways of meeting difficulties were suggested [3, 337].

Another important part of the means used is the graphs. These are quite helpful to a teacher in the choice of the right moment to offer special help or instruction to her pupils. If, for example, several students have reached the same stage in the work on a subject, the teacher may organize an appointment at a fixed hour, and thus summon a group, a whole class or an individual for help and consultation [9, 138].

Together with assignment a student becomes a card, which he holds throughout the month. On one side he keeps account day by day of the quantity of work done, and on the other side as each assignment is finished, the subject mistress enters her remarks upon the quality of it. These cards are much less formal than the reports sent home at the end of the term. They are used for criticism and advice. There is also a chart in each subject room for all the class, where entries are made by the girls [6, 202]. Describing the graph method Helen Parkhurst says: «It made the contract stand out clearly as a whole unit, and imparted a sense of responsibility without driving the pupil.

It has lightened the teacher's task and simplified the organization of work in the laboratories and the general organization of school» [9, 135]. A similar method is described by Margaret Durkin. According to her the checking of the student's work is a duty which devolves upon both the student and the subject teacher. Each pupil is furnished with a card on which are indicated his subjects for four weeks, divided by twenty spaces. When he has accomplished one, two, or three units in a subject, and desires to go to another laboratory, he shows his work to the laboratory teacher, and if it is judged satisfactory, the student indicates by graph that he has accomplished one, two or three days work in that particular subject. At the same time, the laboratory teacher makes a graph record of the pupil's achievement in the class record-book [4, 257 – 258].

So what is a graph? There are three different kinds of graphs: the Instructor's Laboratory Graph, the Pupil's Contract Graph and a Form (a House) Graph.

The first Graph is kept in the laboratory under the direction of the teacher in charge. There you can find a list of all pupils of a certain form, and see their progress in a particular subject. Having finished some part of their assignment a student marks the corresponding amount of spaces in the graph. Thus the instructor may tell at once what progress each student has made, and consulting the graphs in other laboratories follow the progress in all the subjects (there were also adaptations when the teacher himself was marking the progress of a student after the latter had shown him the work done). On the other hand a pupil is able to compare his own progress with the progress of his classmates, see clearly how much is still to be done. Slow children can benefit from such a method too, for they have no sense of unfairness of estimation. These graphs are printed in different colors [9, 135 - 138]. In the experiment described by Lucile Douglas a student, having worked together with his classmates in a laboratory and who has work to present for credit writes his name on the board and the teacher sees him individually and examines his work. It might be necessary for a pupil to go back and do some of his work again, after some explanation or help from the teacher, but 100 percent of his work is presented before he is awarded units of credits, which the contract tells him are the equivalent of his work [3, 337].

Pupil's Contract Graph allows a student to watch his own progress in all the subjects of his assignment. Marking the laboratory graph a student marks his own particular graph. The graph reminds him both of his weakness in some subjects and of the time he should set aside to overcome that weakness. It is also printed in different colors, which correspond to the colors of the laboratory graphs. On the back of the Pupil's Contract Graph there is a blank space for a list of suggestions to pupils which can be made either by the staff or by a committee of students. However, these recommendations should not degenerate into a list of rules. If due to some reason (e.g. illness) a

student misses some days of school, upon the day he returns to school the child proceeds from where he stopped and keeps tracking his achievements further (not taking the missed days into account so that he measures the stuff covered in terms of time taken). As there are no program conflicts under the method, a child can also enter school at any time during the term. If it takes more than four weeks, a month, to finish the assignment, a corresponding mark is done in the graph. Having finished the assignment in a subject a pupil cannot proceed to the next assignment in that subject unless he finishes the whole month assignment in all subjects. The object of the Pupil's Contract Graph is only to measure laboratory time, so only assigned subjects should be entered thereupon [9, 138 – 146].

And though in various implementations practically every principle, expressed in books on Dalton Plan by Helen Parkhurst and Evelyn Dewey, has been violated graphs and contracts have been preserved [10, 507]. This signifies that these are the most important parts of the Plan. The third Graph, known as a Form Graph, or a House Graph places emphasis upon the entire number of weeks of work done. It should be marked every week, either at the beginning or at the end. It enables us to get a psychological picture of the general progress of each class and of the whole school. It should contain a graph for every pupil in the form. It is designed to mark the progress in all the subjects [9, 146 – 148]. Under the Dalton Plan emphasis is removed from marks to accomplishment, and each child is held up to a standard of perfection. His own best effort is always called for, and if that is not sufficient for the desired grade, he is stimulated by individual attention to do better. At the end of the month a test is given in which a mark above 90 is demanded. Occasionally a pupil has to try several times before he can attain that grade, but he is always pleased by the accomplishment [3, 338]. In such a case they have to pass a make-up test.

The fourth graph for the registration of attendance is used in some day schools, either one graph for the whole school if it is small, or one for each form if preferred. The Attendance Graph should be posted on the hall notice board so that each pupil can record the hour of her arrival every morning. Under the date it contains a list of all children and two spaces opposite each, one headed «Punctual» and the other «Late». Students who come on time mark their arrival in the first space and the late ones record the exact time when they reach school. The absence is indicated by the blank space [9, 148 – 149].

Graphs help trace the process of studying, but to measure the very progress made, tests come in handy. Tests in process of administration, by the teacher to all the class, or to groups of pupils who desire to demonstrate mastery of an advanced contract, or even by one pupil to other pupils, in the case of those who are behind schedule in matters of minimum essentials, etc. [7, 667]. Though it is not only the tests, that can be used, Group and individual

conferences, class discussions, talks by the teachers, reports by pupils to the class are also important means, used to trace the pupils' progress on the contract. The question of the methods to ascertain that a pupil had attained mastery in the given assignment is one of the most difficult. It resulted in a considerable improvement in the quality and reliability of the written tests used in the course. With the possible exception of tests given orally to individual pupils, all examinations were objective and all were discussed and scored by the class under the supervision of the teachers [7, 667]. There is a tendency among members of a form to compare their graphs. Elder students also develop interest in and sympathy with the progress of the younger children, and frequently help them. Thus group control and the sentiment of fraternity spread through the school to the lasting benefit of all concerned. Another good thing is that it teaches children to do the work that lies before us whether we are interested in it or not [9, 145]. In the adaptation described by Mary Hargrave frequent short tests were given, the class usually deciding the times for them. Pupils were also responsible for some oral activities which they had to report about. At the same time diagnostic and review tests helped each pupil discover his needs. Suitable drills were indicated and self-tests with keys were at hand. Every pupil knew when he had prepared himself for a final test and when prepared, he could take the test and work on [5, 375]. Here we face an important problem, when, for example, checking the assignment in mathematics on its lowest plain, which consists of a number of exercises to be worked and shown up. Checking it and seeing a file full of neatly copied work may satisfy a teacher as quantity of work done, but it is no guarantee of a principle understood or a power gained. It is a confusion of idea that quality of work, or, in other words mastery of work is measurable as quantity written. If a girl is given an assignment which is merely a number of questions to work and is allowed to get any help she pleases, she may take the order literally and feel the assignment properly carried through when the answers are written, whether she understands what she has written or not [6, 202]. In another variation all the students are presented the same material but the test given is differentiated for the good and poor students [8, 158]. All that any test can show is that the pupil either has or has not, sufficient command of the material to entitle him to credit for his work on it. As a matter of fact, it is generally found that from 75 to 90 percent of the pupils taking the test will be found grouped around a fairly high score, while there will be a smaller group of pupils who have obviously not mastered the work and whose scores will be much lower. This is due to the fact that the content of a minimal contract is so designed that any individual not definitely subnormal or ill prepared should be able to attain mastery of it, while under the more traditional method a single test is designed to probe the knowledge of the best, as well as the poorest pupils [7, 668].

One of the schools, teaching English under Dalton Plan, in the preface to the year's work informed students about the examination they would be sitting in June. It consisted of an essay, questions testing knowledge and command of English, questions testing the knowledge of certain set-books (and the list of these was provided as well. And all the books were available in the laboratory) [4, 263 – 264]. Such approach outlined the general plan of what is needed to master and set distinct requirements before a child. If a pupil finishes his contract in less than four weeks, and the tests or exams he has been submitted to during the concurrent oral lessons reveal that he accomplished the assignments successfully a child is allowed to proceed with his studies and then, will pass the exams later on with the rest of his classmates. Helen Parkhurst stresses that under Dalton Plan there is no danger that a child will have forgotten what was learnt earlier, for the knowledge was gained at the moment of keen interest and at a student's own pace, and thus they are fixed far more deeply in the memory [9, 144].

Another useful means to trace the progress might be suggested by Jenning Blanford – «Achievement» section at the end of each assignment. It contains marks D, C, B, A; and as soon as a student completes the part of assignment required for the grade the teacher places his initials in the corresponding space. At the end of the unit both pupil and teacher can see at a glance exactly what grade has been earned. The teacher's own record book will probably contain only a notation of the pupil's attendance and his final grade in each unit. When the time comes to record these final grades the teacher may well emphasize the fact that he is acting merely in the capacity of clerk [7, 670].

Conclusions. The advancement a child makes is the very aim of education. Dalton Plan enables a teacher to use various means of tracing the progress. To make sure a child is working steadily there was designed a system of graphs. This consists of four various graphs used both by the students and the teachers, for both need to be aware where the child is and what he needs to do. Apart from graphs teacher makes use of various tests, both written and oral. To make sure the slow child masters at least the minimum and the quick one does his best graded assignments and graded tests were used. Again, there have been variations. Achievement section on an assignment or a suggestions at the back of the graph stimulate child to work thoroughly. Individual sessions, group meetings, projects presentations, conferences (whole class meetings) give an opportunity to reveal and explain difficulties. Thus, it is important to keep in mind that Dalton Plan is not a fixed system or method and it enables both a teacher and a student use the traditional and develop the original means to trace the progress of a child that work best in the conditions of a particular school.

**Prospects for further research.** The further research of the topic might be aimed at investigating the problem of task setting for the students studying under the Dalton Plan, as well as the peculiarities of composing tests under the method.

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Петречко Мар'яна. Контроль та оцінювання досягнень учнів при використанні методу Дальтон-план. У статті досліджуються методи контролю за розвитком учнів у навчальному процесі при використанні методу Хелен Паркхерст — Дальтон-план. Вивчаються особливості побудови графіків, використання тестів, індивідуальних, групових та класних занять. Аналізується проблема оцінювання навчальних досягнень учнів при використанні даного методу індивідуалізованого навчання.

**Ключові слова:** метод, завдання, графік, тест, конференція, оцінювання, лабораторія.

Петречко Марьяна. Контроль и оценка достижений учащихся при использовании метода Дальтон-план. В статье исследуются методы контроля за развитием учеников в учебном процессе при использовании метода Хелен Паркхерст — Дальтон-план. Изучаются особенности построения графиков, использование разнообразных тестов, индивидуальных, групповых и классных занятий. Анализируется проблема оценивания учебных достижений учеников при использовании данного метода индивидуализированного обучения.

**Ключевые слова:** метод, задание, график, тест, конференция, оценка, лаборатория.