

**Systematic reading and its influences on academic progress  
(A case study of the students of Payame Noor University)**

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**Abstract:** Reading, like any other activities, needs to be done properly. Talents, abilities and knowledge rely on the quality and the length of reading to develop and blossom. The present study was conducted to investigate the influence of systematic reading on the students' academic progress in Bastak Payame Noor University. 30 male and 30 female students of educational sciences with average scores ranging from 12-15 (out of 20) were selected randomly and separately and were placed in 4 experimental and control groups and using the experimental method, systematic reading methods were performed for them. The results showed the systematic reading method had a significant influence on their learning. Also, the mean difference in learning between males and females was random, which means the influence is the same for both males and females.

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**The significance of the study**

While the development and blossoming of talents, abilities and knowledge depends, to a high degree, on the length and quality of reading, in Iran, the role and significance of reading and learning, learning strategies, educational planning, etc. are unknown. Nowadays, learning and reading methods are considered as technics and despite great advances in technology, learning through reading books is still a primary method commonly adopted. This is especially important given the fact that 30% of the whole national budget is allocated to teaching and learning. Furthermore, a large number of learners, due to inadequate knowledge of proper reading methods, suffer from educational failure, which in turn contributes to a waste of national resources and to personal problems such as psychological ones – discouragement, lack of self-confidence, tiredness and depression with reading. Academic success depends on different factors such as skillful teachers, perseverance, good family conditions, proper reading methods, etc. In most cases, all conditions are present, but reading methods are not proper.

During the past few decades, different psychological methods have tried to develop reading methods, focusing on personal differences, experiences, observations, and learning theories. These methods include: survey reading, speed reading, close reading, inquiry reading, aesthetic reading, critical reading, phrase reading (Seif, 2010: 84-201) and PQRST method (Atkinson et al. 2005: 247).

Nowadays, inadequate or improper understanding of reading strategies is the principal

factor affecting the process of learning. Therefore making students aware of methods for reading can be a great step in improving learning and education. To achieve this goal, the present study aims at investigating the influence of systematic reading on academic improvement in students. This method has been developed by the researcher through studies, research, and personal experiences. This system includes 1) motivation and setting goals, 2) planning, and 3) nutrition. All these parts are interconnected so that they make academic improvement possible.

**Literature review**

Learning properly is not the result of intensive reading. It is rather the product of proper reading. Effective reading is achieved by proper reading methods so that the longer the reading, the better the reading methods. Effective reading depends on two factors: the attitude towards the topic and using reading strategies properly. Having a good attitude makes reading more enjoyable, which in turn contributes to longer reading. Longer reading leads to better development of reading methods, which makes the reading easier, faster and more enjoyable. Therefore, the attitude towards the topic becomes more positive and makes the reader want to read more and not to avoid the material to be studied.

There are different reading methods calibrated by the aim, topic and type of the study. These methods are:

Survey reading: this type of reading involves a fast sampling of the text, key words and phrases, avoiding details in a short time and with high speed. In this method, the reader looks for key words and

ideas, the organization of the text and the style and opinion of the author. The techniques involved in this method are basic organization, setting goals for reading, estimating the level of difficulty and time, and raising questions (Seif, 2010: 87-93).

**Speed reading:** this method is based on scanning which is a basic technique in speed reading. Scanning involves regular eye movements on pages of the book, which makes viewing material in a quick way possible. The result is a quick but not deep understanding of the content. In other words, in this way, the reader gets an overall sense of the whole read (Seif, 2010: 98-111).

**Phrase reading:** it is a fast way of reading to get full comprehension. It involves comprehension of the text by reading groups of words rather than individual ones, hence increasing speed in reading and comprehension. This method has two levels: a mechanical one and a perceptive one. The mechanical level includes making eyes used to reading groups of words rather than stopping at each single word. The perceptive level includes engaging a wider scope of the visual ability so that the reader takes notice of larger groups of words with one single look (Seif, 2010: 117-135).

**Close reading:** this method is used for a thorough comprehension of the text and storing it in the memory to be used in the future. Information is stored in a logical order in the memory. This method provides the reader with a greater depth of understanding as well as better storing in the memory, using it in the future and taking pleasure in reading. The primary techniques involved in this method are organizing, margin writing, marking and summarizing. Organizing involves detecting and relating the central theme, main points and details in the text. In marking and margin writing, the reader highlights the organization of ideas by marking and writing signs on the text and identifies his/her questions, associations and criticisms by writing in margins. Summarizing involves restatement of ideas and their relations by the reader (Seif, 2010: 139-152).

**Inquiry reading:** it is one of the most effective ways of learning by which storing a large amount of information in the memory and retrieving it in the future is made possible. In short, the goal of inquiry reading is to widen the attention span and to understand ideas more deeply. In this method, the reader is supposed to be asking questions constantly, before, during and after reading (Seif, 2010: 158-175).

**Critical reading:** critical reading means judging the truth, value, or credibility of the material against proper criteria or standards. It involves "reading lines", "reading between lines" and "reading beyond lines". Therefore, the reader comprehends and judges the value of the material by asking questions,

drawing inferences, associating and evaluating. An advantage of this method is that the reader reaches a sound judgment and thorough understanding by getting deeply involved in material. It can rid the reader of ordinary ways of thinking and having a narrow viewpoint (Seif, 2010: 180-192).

**PQRST:** the name is an acronym created from Preview, Questioning, Reading, Self-recitation, and Testing, which are the processes involved in it. In the first process, the reader should have a quick view of the whole text to develop an overall idea of it. It involves reading headings, leafing through pages, paying particular attention to primary and secondary topics and studying the summaries provided at the end of each chapter. In "questioning", the reader should study the titles and subtitles carefully and change them into questions. In "reading", the reader should read the material and at the same time pay attention to the answer she/he gave to the questions. Finally, in "self-recitation", the reader is supposed to remember and recite points raised in the text (Atkinson et al., 2005: 247).

**Systematic reading:** this method, which has been developed through the researcher's own experiences, includes these factors: 1) motivation and goals, 2) planning, and 3) nutrition, which are discussed shortly.

### **Motivation and goals**

Reading, as a purposeful activity (Kulikowich & Alexander, 2010), involves personal and learned attention (Graesser, Singer & Trabasso, 1994). Therefore, before starting reading, a goal needs to be set since it is essential to be mentally directed while studying. It is so important that we propose the reader should either not study or set goals in order to keep focused. The goal of studying shouldn't threaten the reader's peace of mind which is primary requirement of good reading. Setting goals such as "getting good marks in exams" or "doing well in exams" is wrong since they threaten the peace of mind. Rather, imagine yourself as a teacher who studies in order to "teach it in class" or tell yourself "I study to take pleasure in it" or "have an imaginary student with you and imagine you are a teacher who has to study the material and then explain it to the student in your own words".

### **Planning**

Plan your daily activities and decisions because planning, together with effort and perseverance, will lead to success. This step includes the following processes:

**Classifying the books to be studied:** in order to have an efficient and successful study, it is better not to read similar subjects (both difficult or both easy)

together. Students are advised to classify their books as easy or difficult, as they wish. For instance, a student might find math difficult or Arabic easy, while another student might have an opposite view. The number of pages to be studied during each time unit (one hour): students need to allocate a specific number of pages to one hour and mark them by folding or putting a sign with pencil. For example, a student marks 8 pages of math and 10 pages of Arabic to study in one hour. S, he/she has to mark the book 8- page by 8-page for math and 10-page by 10-page for Arabic.

Dividing the time of the day: in this method, each day is divided into two parts. Allocate the first part to studying difficult material since the brain has been relaxing and it is not tired; and spend the second part studying easier subjects. For example, a student who classifies math as difficult and Arabic as easy should study math in the morning and Arabic in the afternoon.

Timing of study and break: studying shouldn't last long. In other words, you shouldn't study continuously for a long time because it makes you tired and affects your learning. After each period of studying (every hour), a 15-minute break is necessary. Some students study a special subject for a long time without stop; or when they feel tired, they still continue studying. These students wrongly consider the break as wasted time rather than time for restoring energy and improving productivity. Therefore, it is good to intersperse the study time with breaks to avoid distraction and as a result, facilitating storing information in the memory. For example, pages 1 to 8 from 6 to 7 A.m.; then, have a rest from 7 to 7:15. Then study pages 9 to 16 from 7:15 to 7:30, and continue this way up to the end of the first half. Spend one hour having lunch and relaxing and then start studying again.

Nutrition: most students study full time several days before exams and think eating and having breaks stop them from studying. However, brain productivity could be improved by eating. So, during breaks have some foods containing glucose such as a cup of tea, milk, figs, apricots, honey, bananas, raisins, chocolate, biscuits, dates, and foods rich in magnesium such as nuts, walnuts, almond, raisins, etc. research has shown that students with high-glucose diets perform better in memory and concentration tests. Other research has introduced magnesium as an effective factor in learning (the national scientific committee for iron-helping, 2006; national institute of food industries and research, 2006; the bureau of improving nutrition, 2002). Therefore, nutrition should be considered in all breaks and with suitable amount.

Based on what was said, the investigations of the researcher indicated that in Iran, there is not a good body of research on reading strategies and their effects on learning and academic progress. Also, as Makki (2004) reported, Iranian students are not familiar with proper reading habits. He investigated the level of consciousness of students of Yazd University of the aforementioned reading habits and the results indicated a low level of awareness.

All in all, not only Iranian students have a limited familiarity with reading methods, but they also ignore factors such as motivation, planning, break and nutrition. Therefore, the author tries to study the role of these factors and systematic reading.

### Methodology

This is an experimental research (ex post facto with control groups) with four groups of subjects. The population consists of male and female students from Bastak Payame Noor University during the 2010-11 academic year. Sampling was performed by choosing students with average scores ranging from 12-15 (out of 20) (30 males and 30 females). Then, they were placed separately (males and females) into two experimental and control groups, using a random replacement method. The experimental groups were tested against the independent variable (systematic reading) and the control groups continued their typical method of reading (not tested against the independent variable). Final, the dependent variable (level of learning) was measured for all four groups simultaneously and under the same conditions. The tool was the academic progress test.

In Payame Noor University, the students' learning and academic progress in different subjects are tested by centralized exams developed in the examinations bank. The examinations for each subject are the same in all parts of the country and exams are given at a specific time and day. Grading is performed by machines. However, essay-question exams are graded by the teacher against pre-developed answer keys. In order to measure the students' degree of learning in "the psychology of development", and "the education of exceptional children", the multiple choice tests developed in the examinations bank were used and they were graded manually using answer keys.

Control variables included: degree (undergraduate students), major (educational sciences), and the level of academic performance (average scores 12-15), the students were instructed to use the systematic reading method in a 2-hour session and were advised to adopt it for two subjects: "psychology of development" and "the education of exceptional children". The control groups were not trained. They were told to study these subjects in

their typical ways. After two days, all four groups were tested.

Students  $\left\{ \begin{array}{l} R-----X-----T_2 \\ R-----T_2 \end{array} \right.$

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### Findings

The first hypothesis: systematic reading and academic performance in female students are related. As table 1 shows, the dependent variable (degree of learning) in the female control group is 11.923 and median is 12. Since the mean and the average are close, it could be concluded that the variable distribution is close to normal distribution. The variance is 2.224 and the standard deviation is 1.497, which includes the dispersion of scores among subjects. The grades of the control group ranged from 9 to 14.

In order to compare the mean of the independent variable (degree of learning) among female students, the t test was used for two independent groups. The test statistic is reported in table 3. The number of subjects in the experimental group was 16 and in the control group, it was 13. The average in two groups has a 5-score difference. The test answers the question whether the difference between average scores is significant. As it is reported, in table 3, T is 8.996 and its significance is 0.000. Since the significance is lower than 0.01, it could be concluded that the difference in the mean of degree of learning in control and experimental groups is significant. So it could be said that systematic reading has had a significant influence on the degree of learning in female students in Payame Noor University.

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it could be said that systematic reading has had a significant influence on the degree of learning in female students in Payame Noor University. (Table 1).

In table 2, the statistic of the dependent variable (degree of learning) is reported for the experimental group. As it can be seen, after performing the independent variable, the average grade was 16.875 and the mean was 17, which is a higher value than that of the control group. The distribution of grades is close to the normal distribution. The variance is 2.117 and the standard deviation is 1.454, which shows the dispersion of scores is similar for both groups. (Table 2).

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Second hypothesis: systematic reading and academic performance in male students are related. As table 4 suggests, the dependent variable (degree of learning) in the control group among male students is 10.851 and the average is 11. Since the median and the average are close, it could be concluded that the variable distribution is close to normal distribution. The variance is 2.187 and the standard deviation is 1.386, which include the degree of dispersion of scores among subjects. The grades of the control groups ranged from 8 to 13. (Table 4).

In table 5, the dependent variable statistic (degree of learning) for male students is reported. After performing the dependent variable, the mean was 14.342 and the median was 17, which shows a greater score compared to that of the control group. The distribution of scores is close to normal distribution. The variance is 2.756 and the standard deviation is 1.541, which shows the dispersion of scores in both groups are closed (the same). (Table 5).

In order to compare the mean of the independent variable (degree of learning) among male students, the t test was used for two independent groups. The test statistic is reported in table 6. The number of subjects in the experimental group was 15 and in the control group, it was 14. The average in

two groups has a 5-score difference. The test answers the question whether the difference between average scores is significant. As it is reported, in table 6, T is 7.889 and its significance is 0.000. Since the significance is lower than 0.01, it could be concluded that the difference in the mean of degree of learning in control and experimental groups is significant. So it could be said that systematic reading has had a significant influence on the degree of learning in male students in Payame Noor University. (Table 6).

In another analysis, both male and female experimental groups were compared to determine whether there is a significant difference in learning between males and females. In other words, is the influence of the independent variable (systematic reading) significant in males and females/ to this end, the t test was performed. The estimated T was 0.816 and the equivalent sig was 1375. So, the zero hypothesis is proved in 0.05 level. This means that there is not a significant difference in learning among males and females. Therefore, it could be concluded that the degree of learning as a result of the systematic reading method is the same for males and females. The results are reported in table 7. (Table 7).

### Conclusion

One of the biggest concerns that most students and educators in all grades have is the degree of learning in subjects they study. Since education is an extremely costly practice, it is expected to think of some ways to avoid wasting money. Therefore, all planners and authorities try to maximize learning and, as a result, use all human and financial resources in the best way. An example of these attempts is all the research conducted to evaluate the influence of one factor on the process of learning. However, since learning is a complicated process affected by a variety of factors, the author decided to investigate the influence of a group of factors on learning under the same conditions. To this end, a method called

"systematic reading" including factors such as motivation, timing, break, and planning was developed and tested in an experimental study.

In Payame Noor University, due to a distance learning approach, the students have to study most of their subjects on their own and the teachers have a trivial role in their learning. Although in recent years, due to some new plans, the students spend more time in classes, there is still a strong need to develop new strategies to boost learning. As Makki (2004) suggested, the awareness of students in this regard is very limited.

Therefore, in the present study, the researcher selected a 60-member group of male and female students and divided them into four groups, two control groups (male and female) and two experimental groups (male and female). The experimental groups were required to study based on the systematic reading method with features such as timing, motivation, break, nutrition, etc. findings revealed that the differences among the average scores of males and females was significant in the 0.01 level. So, it is 99% likely that in the population, the degree of learning in students who adopted systematic reading is greater than those who don't use it.

The findings are in line with those of Seif and Shaqqaqi, who suggested that training students in learning strategies is helpful in learning. Also, the findings support those of Haqani and Khadivzadeh. The differences among degrees of learning in males and females were not significant, which shows this method had the same results for males and females. Based on the findings, it is suggested that training programs be developed to teach systematic reading. To teach this method, we can get the help of teachers and consultants who are familiar with this method. Or, we could teach students by publishing brochures or flyers to distribute among students.

Table 1

statistic	median	mean	variance	Standard deviation	least	most	The scope of changes
value	11.92	12	2.24	1.49	9	14	5

Table 2

statistic	median	mean	variance	Standard deviation	least	most	The scope of changes
value	0.875 16	17	0.117 2	0.454 1	15	19	4

Table 3

df	Significance level	T value	Standard error of the mean	Standard deviation	median	number	
27	0.000	9	0.363	0.454	0.875	16	experiment
		8.96		1	16		
			0.415	0.497	0.933	13	control
				1	11		

Table 4

statistic value	median	mean	variance	Standard deviation	least	most	The scope of changes
	10.851	11	0.187	0.386	8	13	5
			1	2			

Table 5

statistic value	median	mean	variance	Standard deviation	least	most	The scope of changes
	0.342	17	0.758	0.541	13	19	7
	16		2	1			

Table 6

df	Significance level	T value	Standard error of the mean	Standard deviation	median	number	
27	0.000	7.89	0.358	0.541	0.342	15	experiment
				1	16		
			0.398	0.386	0.851	14	control
				1	10		

Table 7

df	Significance level	T value	Standard error of the mean	Standard deviation	median	number	
29	0.375	0.816	0.363	1.454	16.875	16	Females experimental
			0.358	1.541	16.342	15	Males experimental
				1			

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