

# A Case Study of the “Pygmalion Effect”: Teacher Expectations and Student Achievement

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## Abstract

The “Pygmalion effect” usually refers to the fact that people, often children, students or employees, turn to live up to what’s expected of them and they tend to do better when treated as if they are capable of success (Wikipedia, the free encyclopedia). However, the positive teaching expectations do not necessarily lead to high student achievement. The case of the learners majoring in thermodynamics matches “anti-Pygmalion-effect” phenomena, showing that in educational domain, it is not always the case that “you get what you expect.” Student motivation, enthusiasm and achievement are influenced by multiple factors besides teacher expectation.

**Keywords:** Pygmalion effect, Expectation

## 1. Introduction: the Pygmalion effect in educational research

Pygmalion first appeared in Greek mythology as a king of Cyprus who carved and then fell in love with a statue of a woman, which Aphrodite brought to life as Galatea. Much later, George Bernard Shaw wrote a play, entitled *Pygmalion*, about Lisa Doolittle, the cockney flower girl whom Henry Higgins, the gentleman turns bets he can turn into a lady. Nowadays, the “Pygmalion effect” usually refers to the fact that people, often children, students or employees, turn to live up to what’s expected of them and they tend to do better when treated as if they are capable of success (Wikipedia, the free encyclopedia).

In the teaching and researching domain, the “Pygmalion effect” was also called “Rosenthal effect” because of the classic experiment by Rosenthal and Jacobson (1968; summarized by Pintrich and Schunk, 1996). At the beginning of the academic year, Rosenthal and Jacobson told the teachers that this test was to predict which students would “bloom” intellectually during the academic year. They deceived the teachers that their genius students had been tested by some new methodology of determining the success of school age children, and these kids were the best of the best. In fact, the students were randomly chosen from 18 classrooms and their true test scores would not support them as “intellectual bloomers”. The result of the experiment showed a distinguish difference between the sample students and the control students. The “bloomers” gained an average of two IQ points in verbal ability, seven points in reasoning and four points in over all IQ. The experiment showed that teacher expectations worked as a self-fulfilling prophecy. If teachers were led to expect enhanced performance from some children, then the children did indeed show that enhancement ([http://www.envisionsoftware.com/articles/Pygmalion\\_Effect.html](http://www.envisionsoftware.com/articles/Pygmalion_Effect.html)).

In 1968, Schrank made a similar experiment, showing the self-fulfilling prophecy phenomenon exists at the group level as well. The result of this experiment was identical with what Rosenthal and Jacobson found in their experiment: Based on no truth, Schrank told teachers that their classes were made up of students of particularly high or low learning potential. High potential group students were later found perform better and learn more than low potential group students.

The experiment by Rosenthal and Jacobson (1968) and the experiment by Schrank (1968) only studied the positive expectations. Brophy looked further into the negative expectations of the Pygmalion effect. In his experiment (1985:180), Brophy found that negative expectations, expectation-mediated discrimination and false evaluation can be harmful to the student motivation. Following his experiment in 1985, Brophy listed 8 concrete forms of negative expectations which made disadvantageous learning conditions. They are as follows: giving up easily on low-expectation students; criticizing them more often for failure; praising them less often following success; praising inappropriately; neglecting to give them any feedback following their responses; seating them in the back of the room; generally paying less attention to them or interacting with them less frequently; expressing less warmth towards them or less interest in them as individuals. (Summarized by Zoltan Dornyei, 2001)

## 2. A case study of the “Pygmalion effect”: teachers’ positive expectations and students’ low achievement

There is a consensus in that the Pygmalion effect involves both positive expectations and negative expectations. In the light of a self-fulfilling prophecy, the Pygmalion effect means “you get what you expected”. If teachers hold

positive expectations towards students, they will be given more learning opportunities or increased challenged, be provided with more detailed feedbacks, be praised more often following success and be encouraged more often following failure. Thus, teacher behaviors influence student performance in a positive way. And vice versa. If teachers hold negative expectations towards students, they will be taken into disadvantageous learning conditions and teacher behaviors influence student performance in a negative way.

However, in a case study of college English teaching, we observe a paradoxical fact that positive teacher expectations, if accompanied by false judgment of students' autonomy, enforcing (on-line) learning requirement and improper design of test papers, can lead to an astonishing result of poor gains of students.

The observed group students are 47 first-year learners majoring in thermodynamics. They are to pass the Band 4 national English test in the second year. The text book of listening and speaking classes is *Hew Horizon College English: Viewing, Listening & Speaking, Book 2*, while the text book of intensive reading classes is *College English: Intensive Reading, Book 2*. According to the term curriculum, the group students will be given 32 academic hours of listening and speaking classes and 32 academic hours of intensive reading classes. Apart from that, the group students are provided with "NPELS Learning Center", "New Horizon Learning Center" and "Blue Bird Learning Center", 3 major on-line learning resources to promote students' autonomy and improve teaching and learning effect in general.

At the beginning of the term, teachers hold very positive expectations as to the group students:

1. Great interests and enhanced motivation in learning English.
2. High autonomy in on-line learning. (As one of the best-resourced university, the students of it can easily access computers and the Internet after class. Hence, the internet resources can be used in an effective way for students to actively express their own ideas, share knowledge and motivate them as opportunities of learning independently.)
3. An overwhelming majority of students passing the term examinations.

In the middle of the semester, an interview was conducted to observe whether the group students could independently and scientifically make full use of internet resources. The interview format could be described as reflective (Hammersley & Atkinson, 1983). The interviewer endeavored to minimize her influence as researchers on what the interviewees said, but at the same time the interviews followed a framework to cover certain key areas in the related research. The interviewer began her interview with the following question: "Do you believe internet is an important resources and an effective means to promote students' autonomy. (Students' autonomy here refers to students' helping themselves and learning independently. )"

46.6 percent of the interviewees' answer to the above question is "yes" and "no". On the one hand, the students were in agreement with that internet has become an important learning resource. On the other hand, they were holding passive attitude in using internet to learn English out of different reasons. The reasons could be summarized as follows:

1. Traditional study habits. Even learners' dorms, language labs and libraries are equipped with Internet facilities; they are still reluctant to access Internet to learn English. It is awkward for them to abandon their traditional learning methods as reading their textbooks and doing some test papers.
2. Instability of the networks. When the learners finally decide to learn English on-line, they are faced with the problem of instability of the networks. This can be a very frustrating experience if they are forced to restart their computer time and again, or get frequently off-line in the course of their studies. Many students turn to give up on-line learning after they encounter such problems once or twice.
3. Low motivation. Although the learners are very aware of the importance of English as a useful tool in the rapidly developing economy, many of them are still unable to take responsibility for their learning. "Students need to be aware that we cannot teach them English unless they themselves are prepared to take some of the strain. Learning is a partnership between teachers and students"(Harmer: 2000:9). It is not surprising to find (in table 1) that 50 percent of interviewees only "sometimes" use internet to study English; 13.30 percent and 2.20 percent of interviewees "almost never" or "never" use internet to study English.

Insert Table 1 Here

When the interviewer asked the group students whether they have a clear English learning objective, only 9.6 percent and 21.5 percent students "always" and "often" have one, 47.3 percent students "sometimes" have one, 16.1 percent and 5.3 percent students "almost never" and "never" have one.(See table 2.) When asked the specific learning objectives, some interviewees referred to high marks in exams. Some interviewees mentioned the importance of English as a language tool. Practically; good language ability will facilitate them to find a good job

after graduation. Therefore, it's important for them to pass the Band 4 national English test, which becomes their sole English learning objective in college. Some interviewees talked about their love of Western culture as a great motivation for them to study English. "If I can learn English better, I will be able to watch the original Hollywood movies, without referring to the Chinese subtitles all the time."

Insert Table 2 Here

"Can you automatically arrange your time to study English?" 3.2 percent and 20.4 percent of the students can arrange their time to study English "very well" or "well". 62.3 percent of the students' answer is "so so", while 10.7 percent and 3.2 percent of the students can arrange their time "badly" or "very badly" (see table 3). Statistics show that the majority of group students are not good at arranging their time to study English.

Insert Table 3 Here

It is not surprising that the performance of the group students in mid-term examination is not satisfying. Two weeks before the mid-term examination, the group students are informed that some listening and reading materials that may be covered in the examination are accessible through the 3 on-line learning centers. Besides, the vocabulary, cloze and writing tests are all text-book oriented. However, the result of the examination confirmed the large gap between the teachers' positive expectations and the group students' low achievement. As the statistics of table 4 shows, the average score is only 68.8328 against the total of 115. Among the 47 observed students, 24 did not pass the examination and the passing rate is only 48.94 percent.

Insert Table 4 Here

Talking about their mid-term examination performances and their gains, the group students said that they understood the high expectations of their teachers, but could not realized them. Some students commented, "I felt that the on-line English learning requirements are enforced on me." "I still prefer the traditional way of learning English instead of using internet." "The test paper is not challenging for some testing materials are accessible online before the examination." All these influenced that realization of the teacher expectation in the case of the learners majoring in thermodynamics.

### 3. Conclusion

There is no doubt that teacher motivation and teacher enthusiasm influences student motivation and student performance. Just as Csikszentmihalyi's comments on the effect of teacher motivation, "If a teacher does not believe in his job, does not enjoy the learning he is trying to transmit, the student will sense this and derive the entirely rational conclusion that the particular subject is not worth mastering for its own sake. If all the teachers they are exposed to are extrinsically motivated, students might well concluded that learning in general is worthless in and of itself."(Csikszentmihalyi 1997:7)

Nevertheless, the positive teaching expectations do not necessarily lead to high student achievement. The case of the learners majoring in thermodynamics matches "anti-Pygmalion-effect" phenomena, showing that in educational domain, it is not always the case that "you get what you expect." Student motivation, enthusiasm and achievement are influenced by multiple factors besides teacher expectation. Even if the teacher expects high, false judgment of students' autonomy, enforcing (on-line) learning requirement and improper design of test papers, can lead to an astonishing result of poor gains of students.

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Table 1. The statistics about the interviewees' attitude of on-line English learning

Q: I use internet to learn English after class.	
always	7.70%
often	26.60%
sometimes	50.00%
almost never	13.30%
never	2.20%

Table 2. The statistics about the interviewees' English learning objective

Q: I have a clear English learning objective.	
always	9.6%
often	21.5%
sometimes	47.3%
almost never	16.1%
never	5.3%

Table 3. The statistics of the interviewees' spare time on English learning

Q: I can automatically arrange my time to study English.	
very well	3.2%
well	20.4%
so so	62.3%
badly	10.7%
very badly	3.2%

Table 4. The performance of the group students in the mid-term examination

	Listening Comprehension	Reading	Vocabulary	Cloze	Writing	Additional reading	Dictation	Total
Mid- term results	'25	'30	'20	'10	'10	Additional reading '10	'10	'115
Average scores	'14.36	'18.47	'12.51	'7.57	'5.92	'5.11	'2.21	'66.15