

A Mathew Effect in the Case of EFL Learners in Junior High School in Iran

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Abstract: *This study is an attempt to investigate Matthew effect on reading in Iranian EFL learners in junior high school level. 25 learners participated in this study along with their English teacher who had been teaching them for a three-year period. Based on Lamb's model of positive and negative feedback, the behavior of the high and low achievers in terms of their final exam scores was investigated. The results revealed that the high achievers continued to boost their performance during the three-year period while the low achievers did not make progress in the same period. This was a proof for a Matthew effect in the context. However, the behavior of some learners did not fit into the Lamb's model for Matthew effect. The researchers concluded that lack of the economic and cultural capital play important role in the happening of a Matthew effect but the counterexamples found in this study showed that they are not the only causes for the phenomenon. The main causes of a Matthew effect in this study were to be found inside the classroom in terms of teacher-learner interactions and peer relationships and the first contacts with English as a subject inside the classroom.*

1. INTRODUCTION

The American sociologist, Merton (1968) coined the term 'Matthew Effect' for the first time. It has been investigated ever since in different disciplines, especially in economics (Rigney, 2010); and in education, where small differences in ability and opportunity among early career academics have been shown to result in major differences in later career achievement (Merton, 1988). Perc (2014) conducted a full-scale review study on Matthew effect. He enumerates many disciplines in which Matthew effect has been investigated.

“...The Matthew effect is puzzling yet ubiquitous across social and natural sciences. It affects patterns of scientific collaboration, the growth of socio-technical and biological networks, the propagation of citations, scientific progress and impact, career longevity, the evolution of the most common words and phrases, education, as well as many other aspects of human culture” (Perc, 2014, p. 11).

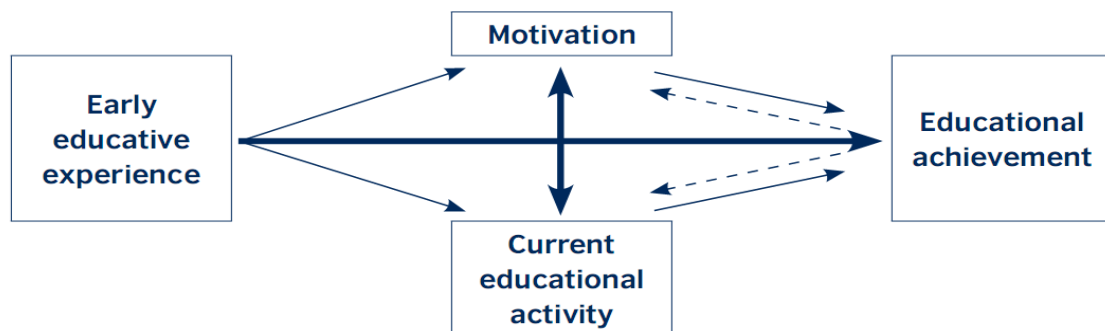
Merton (1968) claims that initial advantage tends to accumulate over time. In other words, he believed that in some societies these initial advantages are self-amplifying. In another study, Walberg and Tsai (1983) claim that:

“Socio-economic and ethnic groups that scored somewhat higher than others in the early grades scored much higher in the later grades; and the gap or advantage increased steadily with grade levels” (p. 360).

2. MATTHEW EFFECT IN LANGUAGE EDUCATION

Three major factors have been addressed while investigating Matthew effect in education. The first one is early educational experiences, the second one is current educational activity and the

third one is motivation. Lamb (2000, p.4) drew a diagrammatic representation of the Matthew Effect based on the Walberg and Tsai (1983):



Stanovich (2000) investigated the Mathew effect in the development of the children’s reading skills. He observed that a slight difference in phonemic awareness in the beginning helps some children in developing reading skills more quickly than others. He reported that by the 5th grade the top ten per cent of children read ten times more than the bottom ten per cent, with obvious benefits for other aspects of their education. Stanovich (2000) also claimed that social class had a great impact on the children’s reading skills development, that is, the students that were coming from the middle classes were more apt to develop their reading skills because their parents had more time to read for them. Moreover, Stanovich (2008) claimed many life-long problems in learning new skills are rooted in early lack of literacy.

In another study, Williams et al. (2002) focused on the motivation of the language learner learning French and German languages in the UK. They reported that, on the one hand, good language learners as perceived by their teachers and by themselves tended to enjoy lessons more, had more motivation to learn more, and consequently did better while, on the other hand, other language learners were caught in a vicious circle of poor performance and motivation. Apart from motivation, the social class again played a role in their study.

Lamb (2011) investigated Matthew effect in six-year case-study in Indonesia. He used Walberg and Tsai’s (1983) model and tried to develop a more accountable model that could account for the Mathew effect in Indonesian context. He used the concepts of positive and negative feedback loops in his model. He claimed that positive feedback model brought about self-confidence which in turn boosted the learners’ motivation. Figure 1 is Lamb’s model for the learners who are always advancing in the language proficiency level.

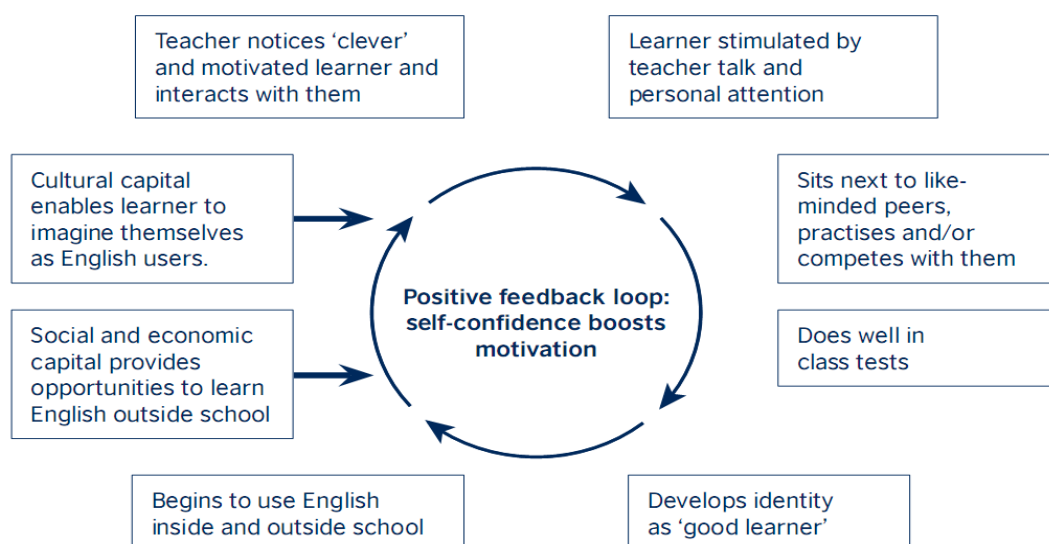


Figure1. *The Matthew Effect in English classes – a positive feedback loop, Lamb (2011, p.15)*

Lamb’s model is a cyclical one which leads to the learners’ self-confidence in an additive manner each time that is repeated. There is also another model for those who are always lagging behind and never advance in their studies.

Lamb admitted that the models could seem simplistic in that the high achievers were not always happy about everything that was happening in their education. Thus, these models are local but could be applied and modified in the other contexts. Based on the other studies Lamb believed that Mathew effect could happen more often in language classes than other subjects. Finally he claimed that there existed a Matthew effect in the special context that he investigated. Social, economic, and cultural capitals were the major reasons for the existence of Matthew effect in the Indonesian context.

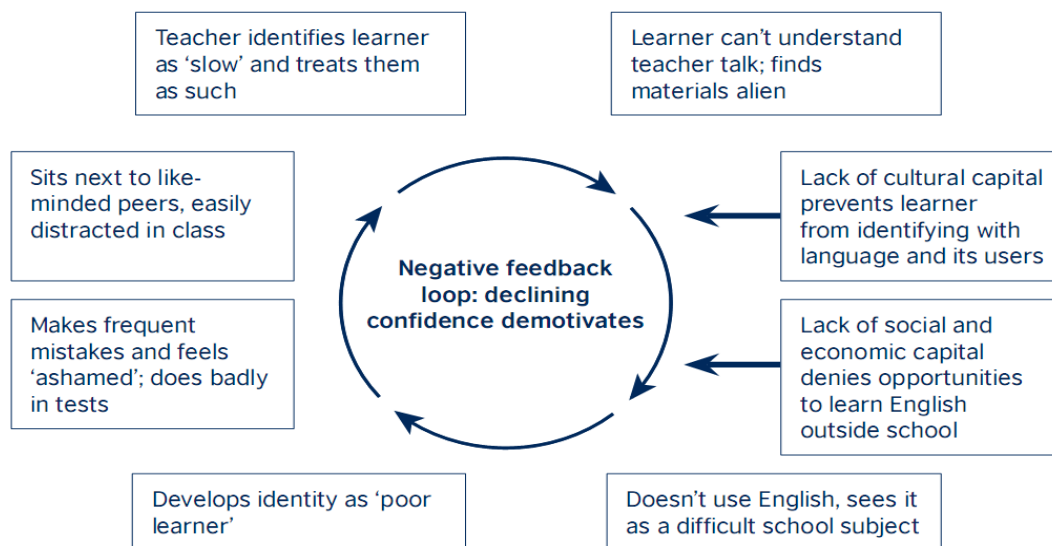


Figure2. *The Matthew Effect in English classes – a negative feedback loop, Lamb (2011, p.16)*

3. THE STUDY

3.1. Purpose, Situation

This study is an attempt to investigate Matthew effect in EFL learner in junior high school level in Iran based on Lamb's (2011) model of positive and negative feedback loops. Junior high school is a three year period which starts from grade 7 to 9 in the recently revised educational system in Iran. The class is located in Sarayan, a small town in eastern province of Southern Khorasan.

Geographically speaking, Iran has been divided into three major zones based on the educational standards and availability of educational facilities such as well-equipped schools, teachers, instructional facilities, private institutes, and the overall economic level of the people. Cities and districts in zone 1 are regarded to enjoy the best standards available, the second zone belongs to the areas that are neither high nor low in terms of the educational and economical standards and finally Zone 3 enjoys the lowest standards. In order to treat the learners equally, the government allocates special portions of the state university seats for the third and second zone in the national entrance examination. Sarayan is located in Zone 3 which means that the people are receiving poor education support. The families are mainly farmers or worker with some students whose fathers were shopkeepers or teachers. Moreover, the students who would enter this school were the ones who had not been accepted in the special junior high schools for elite and gifted students. The same English teacher attended the class during the three-year period in the junior high school. He held an MA degree of TEFL and was interviewed about the learners and the class situation. He had 8 years of working experience. Living with them for about three years, he is aware of their biographical, economic and cultural status.

In the 7th grade, the number of the students would amount to 30. However, the class enjoyed some drop-outs and some students were added to the class in the next two years. The researchers only focused on 25 of students who attended the class during the whole period. The researchers used letters for the learners' names. Apart from the teacher's comments on the level of the learners, the main focus of the researcher was on the final exam scores of the learners as indicator of the level of language proficiency. In Iranian educational system, each student would receive two scores for their English proficiency, one for reading and writing and the other for listening and speaking. The final score is the average of the formative and two summative assessments during and at the

end of the educational year. The score range is from zero to twenty. The researchers tried to emphasize both the writing and oral scores of the learners.

As Diagram2.1 shows, the learners' behavior on the final writing exam shows that they have kept the same level of proficiency during the three-year period with some minor changes in terms of some advances and declines. The researchers analyzed the data using SPSS. In addition to the diagram, the mean of the learner's scores was calculated and the first five top and first five low students were selected. Therefore, students C,P,S,W,H were selected as high achievers and students Y, BN, D, O were selected as the low achievers, this was based on their final exams reports on their writing and reading abilities.

Diagram2.2 shows the behavior of the selected students in high and low groups. As we can see, these students have followed the general trend of the all students, that is, they have not changed their level during the three years. In other words, the top students were keeping the high performance and the low students were still low at the end of the third year. This is in line with the Matthew effect which says that the poor get poorer and the richer get richer.

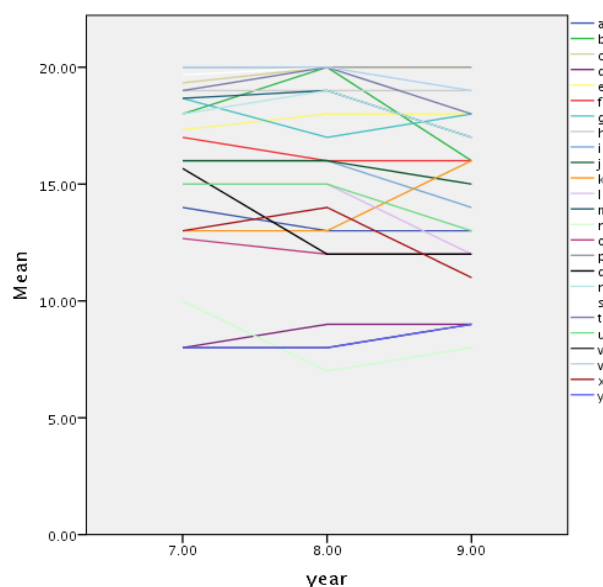


Diagram2.1. learners' final writing scores

As for the oral skills, generally, the learners have been more at ease with the oral exam with having higher grades as it is shown in figure2.3. Thus, the researchers did not find any sharp decline or increase in the learners' score, students N, V, and Y were selected as low achievers and students C,P,T, and W were selected as high achievers.

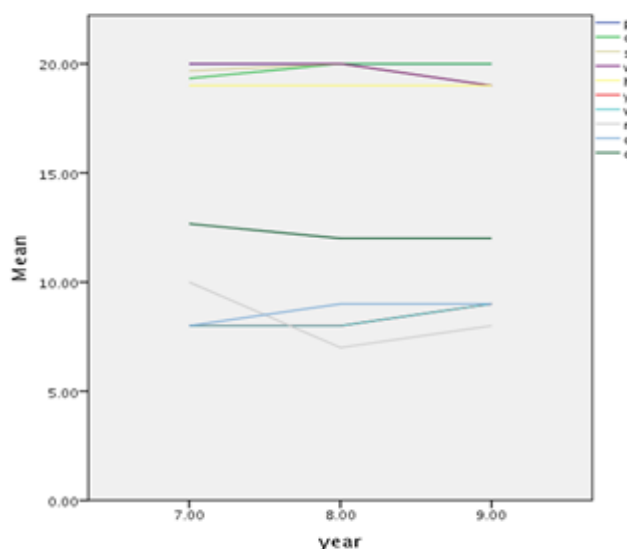


Diagram2.2. High and Low achievers based on the final writing scores

Figure 2.4 shows the behavior of the high and low achievers in the final oral exams in the three-year period. Among the high achievers, students C, P, and W the top students in both exams and in the other side students Y and N were the low achievers in the two exams.

3.2. The Low Achievers

Based on lambs model, the researchers tried to investigate how cultural, economic and social capital influences the achievement of the learners. One of the biggest issues that the teacher was complaining about was the lack of literacy on the part of the parents. They were not literate enough. Most of them do not know English and they do not know the reason why they children should learn English. They have been living their life in Sarayan without knowing many English words and everything has gone quite well for them. This is the case for a large number of parents such as farmers, workers, or shopkeepers. Therefore, it appears that the family is neutral if not against learning English. Thus, there is no chance for the majority of the learners to imagine themselves as English speakers. The teachers have always had problems justifying the learners and their parents that learning English will be for the betterment of the learners in the future.

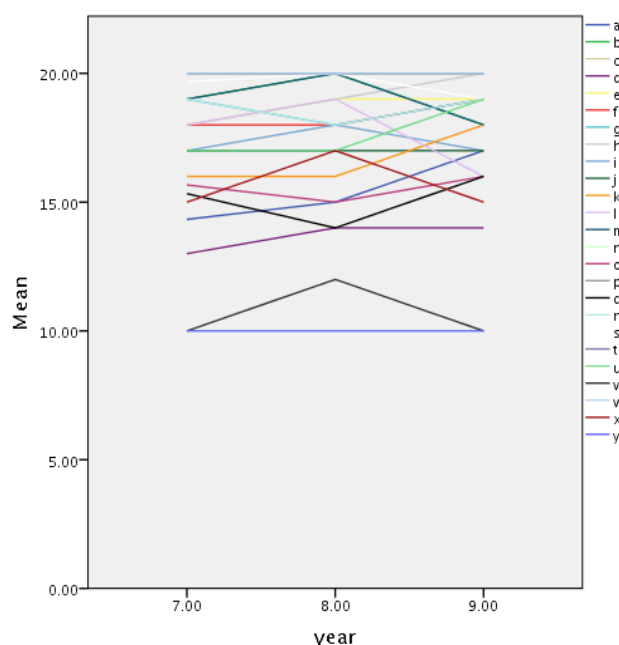


Diagram2.3. learners' final oral scores

As for the social and economic capital, until recently, there has not been any private language institute in Sarayan. This is because of the shortage of competent English teachers and indifference of the learners to the English language teaching institutes that has thwarted any attempt to establish such institutes. There are many reasons for the problem; first, the low income level of the some families prevents them from sending the children to the private institutes. Some of the learners such as Y and V should help their parents who are farmer and baker in the afternoons. They even would not attempt the free-of-charge extra classes held at school in the afternoons. Thus, the lack of the social and economic capital deprives some of the low achievers from any opportunity to learn English out of school. This is a proof why they continue their decline.

Another issue that is very crucial in the failure of the learners is the time and the quality of the material that should be learned in the classes. As mentioned before, the only place that most of the learners and specially the low achievers have a chance to learn English is the class itself. The national weekly program for the seventh grade allocates only one ninety-minute session in a week for the English course. The teacher always complained that he did not have enough time in a class of 30 students. He acknowledged that he was very careful about a friendly first contact of the students with English but the pressure of time and the high load of the materials to be covered would make him pass many of the students' problems unaccounted for. This was specially the case for Y, V, N who were introvert learners and slow in learning and at the same time would not make friend with more competent learners. Each session that passed would add to their deficiency

in learning English and they would gradually accept that they are poor English learners while their teacher did not believe that they are inherently poor English learners.

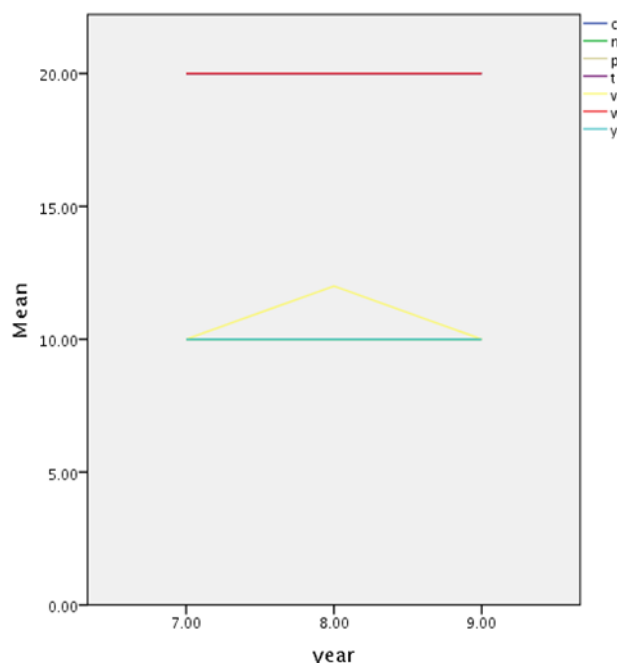


Diagram 2.4. *high and Low achievers based on the final oral scores*

In the context of Iran, there is a general assumption about English that it is one of the tough subject matters that is introduced for the first time in the junior high school stage. The elder brothers and sisters and friends are those who inculcate the attitude of fear of English as a tough subject in the seventh graders who meet English for the first time. This makes it very difficult for the teacher to eliminate their false preconceptions that they bring with themselves to the class.

Quite interesting for the researchers, was the fact that the poor learners would sit together and the teachers attempt to regroup them with more competent learners would fail after one or two weeks. As observed in the classroom, after three months, they took their mid-year exams and they got very low marks and the stigma of being poor learners had been internalized in them. From that moment on the teacher felt that they would not pay attention to him because they thought that they would not learn English. Frequently they would simply say that “I’m sorry, I am weak in English. I try hard but I can’t...” The teacher would introduce them to the private language institutes and would talk to the principal and their parents about their problems. However, these learners would repeat the same level and behavior during the three years of junior high school. Sometimes their performance would worsen in the 8th or 9th grade.

3.3. The High Achievers

While the situation was the same for both the high and the low achievers at school the difference lay outside the school. Student’s father was a teacher who had prepared his son in advance. When C entered the class, he was not afraid of English and he knew some preliminaries of English upon the start. The father of the student W was a police officer who was very concerned about the educational status of his son. Although, the fathers of student’s P, S, and H were not clerks, they had enough money to spend for their children in term of buying supplementary books and sending them to private classes. In other words, the learners were not supposed to work in order to help their families financially. Thus, the economic and social capital played a big role in the progress of these learners.

These students were able to make do with all the problems that were mentioned and kept up with the pace of the lessons. They were sponsored by their families and would make friends with each other. For example, as a learning activity, they would change the dialogues in the book and would act out it the class. They were always volunteers for doing classroom activities. The teacher was satisfied with their performance and had close contact with their families. During the first year, they developed their identity as a competent learner and they continued their high performance in

the next two years. In many cases, they took charge of some weak students and worked with them during and outside the class. The striking point about them, as attested by their teacher, was their high self-confidence that would increase in the whole period.

3.4. Counter Examples for the

Lamb's models could account for the existence of a Matthew effect for both low and high achievers. However, there were some other students whose behavior would not follow his model. For example, the performance of student Q whose father was a doctor and he made use of the best private classes was always near to the low achievers. His teacher believed that he did not have enough self-confidence in the seventh grade. Being a low student, he did not keep up with the pace of the class and lost his self-confidence as he moved on. His good social and economic status could not help solve this problem. Moreover, there are many examples of the learners who did not enjoy a high social and economic capital but preformed very near to the high achievers in the classroom.

4. CONCLUSION

Although lamb (2011) posited that his model is just for explaining his own case study, but this study showed that it could be applied in other case studies with some modifications. In this study, there was very little if any intrinsic motivation on the part of the learners to imagine themselves as real English users because the context did not allow for any real-world use of English. Most of the learners would use English to meet their needs; they would learn English just as a subject that should be learned along with the other subjects. This is also the case in the next academic stages in Iran. English is treated as a subject rather than a language that should be used in the everyday life. Thus, this is a big difference with Lamb's learners in his study that had contact with people outside their community and would use English in order to meet the needs.

The researchers concluded that one of the most significant causes of having a Matthew effect phenomenon rests inside the classroom, teacher-student interactions is one of the most important factors. The teacher himself accepted that his full-scale attempts to help the low achievers at the first year was replaced by a mutual acceptance between the teacher, the principal of the school and the low achievers that they could not change the status-quo. On the other hand, as the diagrams 2.1 and 2.3 show, the leaners that passed the first year with a good record could generally enhance their records in the next two years through establishing a win-win relationship with their teacher and the school administration. The students grouping relationships also had a great impact on the situation, although the teacher had tried to make use of grouping good learners with poor learners as a tool to enhance their performance, the teacher's observation during the period showed that these groups were only intact inside the classroom and the learners would not abide by their teacher grouping orders. The high achievers will go with high achievers and the low achievers will go with the low. Finally, the Matthew effect was at work in this study, as those who had started very well at the beginning of the period continued to have a high record in the rest of the three-year period, while those who started badly at the beginning continued their bad record in the future. However, it seems that in each context along with the major reasons such as the cultural, social and economic capitals, there are special reasons that play the major roles in the happening of a Matthew effect in language education. Thus, it appears that trying to find a general model for the Matthew effect is not plausible.

REFERENCES

- Lamb, M. (2011). A 'Matthew Effect' in English language education in a developing country context. *Dreams and Realities: Developing Countries and the English Language*
- Merton R. K. (1968). The Matthew effect in science. *Science*, 159, 53–63.
- Merton, R. K. (1988). The Matthew Effect in Science II: Cumulative advantage and the symbolism of intellectual property. *Isis* 79(4), 606-623.
- Perc M. (2014). The Matthew effect in empirical data. *J. R. Soc. Interface* 11: 20140378. <http://dx.doi.org/10.1098/rsif.2014.0378>
- Stanovich, K. E. (1986). Matthew effects in reading: Some consequences of individual differences in the acquisition of literacy. *Reading Research Quarterly*, 22, 360-407.

- Stanovich, K.E. (2000). *Progress in Understanding Reading*. New York: The Guilford Press.
- Stanovich, K. E. (2008). Matthew effects in reading: some consequences of individual differences in the acquisition of literacy. *Journal of Education*, 189, 23–55.
- Rigney, D. (2010). *The Matthew Effect: How Advantage Begets Further Advantage*. New York: Columbia University Press.
- Walberg, H.J. & Tsai, S. (1983). Matthew effects in education. *American Educational Research Journal*, 20, 359-373.
- Williams, M. & Burden, R. & Lanvers, U. (2002). ‘French is the language of love and stuff’: Student perceptions of issues related to motivation in learning a foreign language. *British Educational Research Journal*, 28(4), 504-528.