The Matthew effect in education

By Professor Jan Willem de Graaf
Professor of Brain and Technology, Saxion University of Applied Sciences, Deventer, Netherlands

Education and the so-called Matthew effect (the rich get richer, the poor get poorer) are inextricably linked. Over forty years ago, the psychologist Stanovisch was the first who demonstrated that children who achieve the intended results of education early (reading, writing and math skills) have a lifelong advantage in using and improving these skills.

Conversely, those who initially fail (partially) on these learning tasks tend to lag behind, which will hinder them relatively easily in various other learning processes. Hence the name, analogous to the Matthew story, in which the rich get richer (the first to become more skilled) and the poor get poorer (the "late bloomers" are not likely to blossom at all). According to researchers, this effect can be found everywhere: success creates success and disadvantage tends to create disadvantage. For instance, the most quoted researchers are constantly being quoted again, while other equally good (or even better) researchers are disadvantaged by this.

The essence of good education is not only to provide the middle groups well, but to prevent the emergence of "poor" people as much as possible, who then tend to become "poorer". This is only possible if the context (the child's home) is included early in the learning process. Lately, however, now that children are also connected to each other (and the rest of the world) via the World Wide Web (apps and other smart technology), the classical force field has changed in which, among others, Stanovian and many after him investigated the Matthew effect in education. This also offers new possibilities to tackle the discrepancy between "rich and poor".

Success creates success, and if a child happens to have a good start in the learning process due to, for example, a good home situation or a good connection with their (first) teacher, the child will become more successful than when a child (with exactly the same genetic material) "coincidentally" has a bad start.

Which is why the Matthew effect is sometimes called "arbitrary contamination". The effect has potential in many areas. For example, if a young person is found to be nice, beautiful and / or handsome, that person will learn to use this "charms" early and will tend to build up skills with it, and so on. Although success is unpredictable, happiness is favourable to those who are prepared for it. Opinions about artistic expressions are results of arbitrary contamination even more than political ideas.

In essence, I think that the internet certainly offers opportunities to children who are not necessarily the "rich" in terms of education. In a new hype someone can easily get a lot of attention, an adolescent can happen to be in the right place at the right time many times. In the Netherlands, for instance, there are very average children who started a YouTube channel and got hundreds of thousands of followers. who in fact only film every few days how they, for example, open a surprise egg. Success is less linked to developed intelligence than it is within the school system. Whether this is better or not is a completely different discussion ...