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# ROLE MODELLING FOR A HOPEFUL FUTURE: EVIDENCE FROM INDIA

RESEARCH REPORT

# Research Report

Hope is simple and profound. This project highlights the significance of role models on fostering hope and increasing academic effort and performance of primary school children in India. Research found that students that watch a motivational film were hopeful about their future selves. In addition to becoming more optimistic, these students became happier. The study found marked improvements in student attendance and academic performance in the short and medium run. A carefully designed intervention such a motivational film featuring positive role models can serve as a useful tool to inspire students to aim and achieve better.

Dr. Bhan, also the author of this brief, hypothesizes hope as a fundamental capability. He argues that fostering hope, alike aspirations, through role-modelling interventions, can increase effort and academic performance leading to early child development.

## Context

According to Bertrand et al. (2005), appreciation of people's preferences and understanding the motivations that shape such preferences is a policy making issue that deserves more attention. Hope has been found to be associated with improved athletic and academic performance. Yet, the economics literature misses any direct treatment interventions on this. Deeply ingrained feelings of hopelessness, low self-esteem, low self-efficacy and low aspirations – altogether termed as 'internal constraints' – remain underexplored in education policy discourses. While encouragement and empowerment are associated with heightened feelings of self-esteem and efficacy; not enough steps are taken to promote this in schools.

Internal constraints are precursors to myopic decision-making and underinvestment in health, nutrition, and education (Banerjee and Duflo, 2011). Aspirations and effort are co-determined (Dalton et al. 2016). In situations of hopelessness about the future, a vicious cycle of aspiration failure and low effort often lead to a lack of will to make a change in the present. Hopelessness about the future can depress individual capacity to envision a brighter future and develop the motivation to conceive plans to make positive changes. Such hopelessness stemming from a depressed capability can lead to under-investments in health, education, and savings, to name a few. This in turn becomes a self-fulfilling prophecy of

poorer outcomes in the future leading to lower levels of hope. Nonetheless, addressing these internal constraints by making improved academic performance more desirable, and more importantly, attainable to students is still an underexplored topic.

This research assesses the implications of employing hope as a key channel to inspire and motivate school children. The findings can be generalized for primary school children in most parts of India. As per Snyder (2002), high hope individuals are more capable of finding alternative routes to reach their goals and stay mentally and emotionally energized and motivated to start and stick to their pathways and pursuits. Similar evidence has been found in countries like Uganda (Riley, 2022) and Indonesia (Glewwe, Ross and Wydick, 2018).

## Study design

This study was conducted in class four students (age 7-12 years) from six schools in Jaipur, Rajasthan. These schools cater to the lower-middle income strata of the population in Rajasthan. The project was proposed without revealing the intent of the study or any information that could influence subjects. The selection strategy ensured homogeneity across the sample of students by selecting schools that were geographically and socio-economically comparable and located within the capital of the biggest state of India. Sixty one percent of the sample was composed of boys with an average age of 9 years old. The students reported studying for an average of six to seven hours per week. The majority of the sample was native and Hindu which is representative of the region of Rajasthan.

About 450 students were randomly assigned to a treatment or placebo group. Treated students watched a short motivational film produced specifically for this study. The short film was produced in Jaipur and drew on the lessons from the Economics literature and cinema/feature films. The main intent of the intervention was to evoke a role modelling effect where the viewers can learn from the protagonists of the film. The placebo group watched a short film devoid of any motivational content to avoid priming the placebo students in either direction. Information on psychological and learning outcomes was collected and then compared across the two groups before and after the intervention.

## Key Messages

### 1. Hope is measurable and malleable

Hope is as simple and profound in our lives. This study employs two ways to measure hope, by using a 6-item Children's Hope Scale (developed by C.R. Snyder) and performing psychometric analysis of children's drawings. The two methods are straightforward and rely on individual characteristics being correlated to either carefully worded statements in a likert-scale or manifested in their drawings (draw a portrait of yourself task).

The project goes a step further in also illustrating that not only can hope be measured but it can also be influenced exogenously. The experiment used exposure to a motivational film to check if any improvements are recorded in children's hope levels. The findings show that not only is it possible to make someone more hopeful but in doing so, improvements in individual effort and achievement can be expected. Higher hope is an instigator of effort. For a more hopeful person, one additional unit of effort seems less costly (or more beneficial) than a less hopeful person.

The standardized hope, effort and performance levels of the students in the treatment and placebo groups are not statistically different from one another before the intervention. Markedly, the study finds that after a 30 minute film the hope levels of students increased by 0.17 standard deviations (sd). The increase was the strongest in the least hopeful students as recorded in the baseline. Individual effort increased by 0.17 sd too as identified by the attendance in a remedial class. School attendance rose by 0.02 sd after 6 months and learning outcomes for English increased by 0.11 sd after 6 weeks. All of these effects in the treatment group students were highly statistically significant. School attendance and test scores - direct predictors for academic achievement in the long run - increased by watching a short 30-minute movie. Students who watched the film attended the school more often and did better in school.

### 2. Role modelling interventions can improve children's hope and aspirations

Our surroundings influence us. What we see and observe, our past experiences, stories and narratives, all shape our worldviews and behaviours. Based on this psychological tenet,

The study produced a set of three short films in Jaipur, India. The location and protagonists of these films were selected to heighten the familiarity of the sample to that of the projected role models and their stories.

The films portray stories of two girls: one who wants to become a badminton champion and another who is very studious and wishes to build a career in science. An aimless

boy is the lead for the third short film. Subject to financial and motivational constraints the road to their dreams is filled with impediments. However, all three of them do not lose hope and overcome all obstructions to become a national level badminton player, a renowned doctor and an air-force pilot. Elements of hope and how it fueled the role models' journey were carefully incorporated in the movie. Each film was designed to be approximately eight to nine minutes in length as shorter clips are better suited to the attention span of primary school children. To heighten the susceptibility of the viewers to these role models, two female and one male protagonist were featured. It is established in the economics literature that females respond better to a female role model, but such pattern is missing for males.

The three main lessons to design motivating films that have an effect on student motivation and performance include: (i) attention span of viewers and the corresponding entertainability of the narrative; (ii) familiarity to the context and susceptibility to the protagonist; and (iii) choosing achievable instead of lofty goals.

Research over the last couple of years has found many entertaining ways to improve learning outcomes, via pedagogical innovations, changes in information delivery processes or technological developments. In so far, this project uses one such medium – multimedia – to offer an entertaining way to boost student motivation directly leading to improved academic performance (edutainment). While the long-term effects of such developments are still a question for further research, it is reasonable to predict that intervening at an early age can have positive multiplier effects over the years to come.

Carefully devised interventions that are also entertaining and fun can go a long way in bringing both short- and medium-term gains. This is specifically true for younger children. Growing up, students get exposed to numerous contents on different multimedia channels, both inside and outside of schools. Such motivational films are not difficult to produce, and a roadmap is outlined above. This could substantially reduce the marginal costs for producing additional content. Furthermore, a handbook for delivering such motivational content via multimedia channels is now available, making it easier to develop similar films. If a one-off exposure can lead to strong improvements in motivation, effort and achievement, regular interactions with such content could have incremental effects. Moreover, repeated exposure to similar or the same content is possible at barely any additional cost.

### **3. Role modelling interventions are cost-effective, scalable, and reproducible instruments to advance education**

Addressing the material constraints through more books, smaller classes sizes or vaccination campaigns are crucial for development. Nevertheless, the significance of appeasing the accompanying feelings of hopelessness or aspiration-failure should not be overlooked. Hopefulness acts as a guide towards self-worth by strengthening the belief that goals can be achieved. A more hopeful student may also benefit better from programs aimed at addressing resource constraints.

This issue is of importance for two reasons. Role modelling based psychological interventions to foster hope are low-hanging fruits for public policy due to their cost-effectiveness as highlighted in this project. For every 100 USD spent, nearly 22 students could be made more hopeful about their future and these indeed did perform better in school. The cost effectiveness analysis shows that role-modelling interventions can be one of the many cheap and easily scalable ways forward in child development. On an average it costed less than USD 5 per student to invoke the psychological and academic improvements demonstrated in the study. These positive effects are comparable to other studies such as providing teaching incentive (Duflo, Dupas and Kremer, 2011) or conditional cash transfer programs (Baird, McIntosh and Ozler, 2011).

Secondly, they are easily reproducible and scalable. Once produced, the same film could be showcased at the same time (or different time periods in a delayed fashion) across several schools catering to different strata of the society multiple times. There could be individual screenings of open theater shows within or outside the premises or schools or local community centers. These findings encourage a whole set of experimentation that can be undertaken at very little cost that could help to identify the optimal strategies in which role modelling interventions can be harnessed.

Role modelling interventions can also enhance the impact of other social programmes. Without psychological interventions these programmes may fail to have the desired effects due to the persistence of internal constraints. Therefore, psychological interventions are not only cheap and scalable but they also play a key role in the sustainability of other public programmes.

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