

LET A BILLION READERS BLOOM: SAME LANGUAGE SUBTITLING (SLS) ON TELEVISION FOR MASS LITERACY*

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Literate but cannot read

An estimated 250 million officially “literate” people in India cannot read a simple text. Same Language Subtitling (SLS) of Bollywood film songs on TV is already giving regular reading practice to 100 million weak readers. Informed by more than a decade of research and implementation, a case is made here for SLS as a cost-effective and proven solution for lifelong reinforcement of reading skills.

India’s literacy rate experienced a dramatic rise in the last fifty years, from 18.3% in 1951 to 65.4% in 2001, when the last census was conducted. That translates to a country of 562 million literates and 296.2 million non-literates. The most significant decadal growth of 12.9% was in the 1990s, mainly due to the innovative Total Literacy Campaigns (TLCs) of the National Literacy Mission (NLM). That much is the oft cited good news.

What does a literacy rate of 65.4% actually mean? The Indian Census defines a literate as “A person aged 7 and above who can both read and write with understanding in any language.” Relaxing the definition on writing, can 65.4% of the 7+ population in India, at least read a simple text with understanding? Not really. What it means is that households across India reported 65.4% of its members to be “literate,” when the census field-worker showed up.

What if the national census had actually tested for reading ability? We did just that, with a sample of nearly 20,000 people drawn from 3,200 randomly chosen households in four Hindi states – Rajasthan, Uttar Pradesh, Madhya Pradesh, and Bihar.¹

First we followed the census approach. Then we asked every household member, aged 7 and above, to read a simple text in Hindi, of 35 words, that

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a student in class two might be expected to read. Those who could read it correctly, at their own pace, were classified as readers. Those who could read only parts of it, took recourse to sounding syllables before putting words together, or even demonstrated rudimentary alphabetic knowledge, were classified as “budding-readers.” Budding, because, given the right conditions, they could bloom remarkably well into functional or fluent readers. The rest were classified as non-readers, those who could not read at all.

The census approach gave us a literacy rate of 68.7% in the sample. The reading test, in sharp contrast, resulted in 26% readers, 27% budding-readers and 47% non-readers. Even if one were to club the readers and budding-readers, at best 53% could be considered to be readers. The census method, thus, led to an overestimation of the literacy rate, in the Hindi states, by 16%. It also masked the fact that over half the so-called “literate” population are actually budding-literate.

Taking the liberty to project nationally, if only for perspective and not precision, India’s 7+ population of 858 million in 2001 can be estimated to have had approximately 246 million readers, 249 million budding-readers, and 363 million non-readers.² Our estimate is supported by the NRS (2006) finding that there are 581 million literates nationally but only 222 million readers of newspapers and magazines – 110 million in rural and 112 million in urban India. In large measure that is because around 250 million so-called “literates” in India cannot read functionally.

India, like most low literacy countries, has a massive number of budding-readers, who are passed off as “literates” in the census. Policy pressures, both internal and external, are to raise the literacy rate. While national policies focus on transitioning the masses of illiterates to a budding literacy stage, they tend to stop there, not least because this achieves the purpose of permanently adding numbers to the ranks of the “literate.” Although there are national efforts for literacy skill improvement beyond the budding stage, they tend to remain programmatic and short-term interventions that are unable to reach the majority of budding literates. There is little in educational policy that remotely approaches the scale of the challenge of transitioning 250 million budding readers to functional reading ability as a lifelong intervention.

Primary education may be seen as a long-term solution for achieving both a high literacy rate and functional reading abilities among the “literate.” But at current levels of quality in primary education, the latter goal is likely to remain elusive for some time. For sure, primary schooling is a major contributor to the literacy rate. In Hindi states, we found that 90% children, who completed first grade, were immediately reported as literate by their families even though most could not read functionally. With net enrolment in primary schooling at a respectable 92%, primary schooling is a sure shot contributor to the literacy rate. But to what extent is it imparting functional reading skills?

Primary schooling actually results in a large number of budding literates who never quite make it to functional ability. ASER (2007) finds that,

nationally, 33.6% students in classes 3–5 were unable to read at a very basic level. Our own research in Hindi states echoes this. We found that, among adults with a class five education, 26% could not read at all, 62% could not read a simple paragraph at second grade level, although, they demonstrated budding abilities, and only 12% could read a simple text comfortably.

National literacy efforts and the formal educational system both continue to add efficiently to the budding reader population. But neither system, as we have argued, addresses the challenge of transitioning large numbers of budding readers to a functional reading level.

Same Language Subtitling was thus born in a policy vacuum of lifelong strategies for budding readers. SLS aims to make reading an integral part of the everyday life of all so-called “literate” people, especially the 250 million or so “literate” who quite possibly cannot yet read the day’s newspaper headlines. Two out of three budding literates, or 166 million, are in rural areas. The sheer numbers imply that it cannot be done effectively without the help of mass media, and one medium that can truly claim national reach is television.

Television access in India

There are 112 million TV homes in India (NRS 2006). With a conservative average of five viewers to a TV set, that’s around 600 million viewers with direct access to TV. Although the proportion with access to TV is far higher in urban areas, there are 340 million viewers in rural areas as compared to 260 million in urban areas. These numbers continue to increase and do not include viewers with indirect access. A significant proportion of TV viewers are budding readers or non-readers. Our survey of rural areas in the Hindi states found that 43% of TV viewers are budding readers and 34% non-readers. Hence, television in India already reaches anywhere from 200 to 250 million budding readers and an equal number of non-readers. This should dispel any suggestion that non-literates and early-literates do not have access to TV. Many do.

Same Language Subtitling (SLS)

Now visualise 600 million TV viewers consuming, with great passion, a daily staple of Bollywood-style film songs, in every major language. Film song content on TV is as old as TV itself in India. Imagine a simple change one day. Every film song just happens to be shown with the song lyrics at the bottom of the screen, word for word in the “same” language as the audio. What you hear is what you read – a Hindi song with Hindi lyrics, a Telugu song with Telugu lyrics, and so on in every language. Every on-screen word is highlighted in perfect timing with its expression in the audio. This in essence is SLS, a deceptively simple change that seemingly amounts to

nothing. But it has the colossal power to invite 600 million TV viewers in India to read along subconsciously, incidentally, and automatically.

SLS is essentially, Karaoke unleashed on the airwaves and not confined only to bars for the entertainment of the literate. Can SLS turn on regular reading for 600 million viewers, especially the budding literate? Would viewers accept and even like this simple change? Would SLS lead to reading skill improvement? Would it spawn, for example, more newspaper reading?

Reading is inescapable

After in-depth eye-tracking research, d'Ydewalle et al. (1991) came up with a simple but powerful conclusion, that reading of on-screen subtitles is *automatic* and this automatic reading does not require prior experience or habit formation with subtitles. In their experiment, subtitles were shown in the same language as the audio. If the subtitles are there, they will be read and simultaneously processed with the audio in a complementary manner. More recently, Jensema et al. (2000) used similar eye-tracking methods with deaf and hearing adults, essentially confirming d'Ydewalle's important conclusion. Closed-Captioning (a form of SLS) turns television engagement from a dominantly picture viewing to a dominantly reading activity. These studies were done with Roman script subtitling in English among subjects who were already functionally literate.

Impact of SLS on budding readers

Three of our studies have consistently shown that exposure to SLS results in improved reading skills. The first evidence came from a controlled experiment with primary school children from disadvantaged backgrounds, in Ahmedabad (Kothari et al. 2002). The experimental group that saw songs with SLS evinced greater improvement in decoding ability than the first control group that saw the same songs without subtitles or the second control group that saw no songs at all. The improvement, as expected with limited SLS exposure, was incremental but, more importantly, consistent and statistically significant.

The second study implemented SLS on TV for the first time. SLS was simply added to an existing weekly 30-min programme of Gujarati film songs – *Chitrageet* – telecast all over Gujarat state. Gujarat, thereby, became the first Indian state and the first site anywhere in the world where SLS was implemented expressly for the purpose of promoting mass literacy in the first language. The results were consistent with those found in the earlier school experiment with children. Exposure to SLS on TV, only for 30 min per week over a six-month period, led to measurable improvement in reading skills among adults (Kothari et al. 2004). It also became increasingly clear that

SLS was not a magic bullet that could cause dramatic improvement in reading abilities in a short time-frame of six months, but had the potential, over time, to transition millions of budding readers to functional reading.

In 2002 we began our most comprehensive longitudinal study that continues till now. We added SLS on Rangoli, a nationally telecast programme of Hindi film songs. A baseline of the reading skills of a randomly drawn sample of 13,000 budding-readers and non-readers was commissioned in 2002 to Nielsen's ORG-CSR. This was followed by two impact studies by the same agency – in 2003, a year later, and in 2007, nearly five years later. The reading skills of the same sample were re-measured by the exact same battery of reading tests. Our analysis contrasts those who were regularly exposed to SLS, because they liked to watch Rangoli (experimental or SLS-group), and others who had TV but rarely watched Rangoli (control or no-SLS group).³

We looked at the impact of SLS on school children who were illiterate in 2002, when SLS began on Rangoli. Purely from schooling, without any exposure to SLS, we found that 24% children became good readers after 5 years of schooling. But in the group of school children that was exposed to SLS regularly, at most 30 min a week over five years, 56% became good readers.

In the no-SLS group 25% children remained illiterate even after 5 years of schooling. While in the SLS group 12% remained illiterate. Thus, exposure to SLS more than doubled the percentage of children who became good readers and halved the percentage of children who remained illiterate. Essentially, a child who acquires in school reading skills that are simultaneously practiced at home, becomes a much better reader.

The impact of SLS on children was also found in adult illiterates, albeit, less pronounced. After five years, while only 3% illiterate adults became good readers in the no-SLS group, in the SLS group, 12% became good readers. In the no-SLS group, 83% non-reading adults remained completely illiterate. But in the SLS group, a smaller percentage of adults, 68%, remained completely illiterate.

At the time of the baseline, among adults who self-reported to be literate, 33.7% read a newspaper, at least once a week. This went up to 70% in the SLS-group but to only 42% in the no-SLS group. Among adults who self-reported to be illiterate at baseline, newspaper reading, at least once a week, went up from 1.1% to 22.7%, with SLS exposure. But without SLS exposure, it went up to only 7.5%. Exposure to SLS, thus, leads to better reading skills and encourages other forms of print engagement.

SLS is popular

SLS enhances the entertainment value of song-based programmes on TV. We found that SLS raises the ratings by 10–15%. Over 90% of viewers like SLS, not specifically because it gives them reading practice, but because it

allows for singing along, knowing and writing down song lyrics, and clarifying words in songs that they were unsure of. Thus, reading improvement for most viewers is a subconscious process and a by-product of entertainment. Motivation to practice reading is guaranteed because of the motivation people have for Bollywood songs. Importantly, frustration levels do not build up during reading along with songs, since the “answer” to how a word is sounded, is immediately there in the audio. Text-sound associations are strengthened without one’s conscious knowledge. With repeated SLS exposure, even a budding reader finds that he/she can actually read with greater ease (see Kothari et al. 2004 for qualitative testimonials).

Conclusion

The impact of SLS is strongest when reading skills picked up in class are inevitably and concurrently practised at home. Up to now SLS has been implemented on 10 existing film song programmes in India, in as many languages and states. This is giving regular reading practice to at least 200 million people in their native language, over half of them, budding literates. But with only one 30-min programme a week in a given language, that may or may not be watched, exposure is severely limited. But it can be ramped up easily, especially since SLS costs so little.

In India, because of the large number of viewers in most major languages, every US dollar spent on SLS, can deliver on average, 30 min of weekly reading practice to approximately 1,000 people, for one whole year. That is, reading for \$0.001 per person per year. Therefore, ramping up exposure in all languages, one might assume, is a simple policy matter. Our experience shows otherwise.

SLS addresses a big gap in the educational system, that of potentially making readers out of 250 million “literate” who cannot read. The solution is proven, through research. It costs a song. Viewers like it, overwhelmingly. It even serves to make media accessible among the deaf. Some of the nation’s highest policy makers, in broadcast and education, have supported SLS in project mode. Nevertheless, after 11 years of building, what we believe is a compelling case, the SLS project struggles and continues to survive in project mode. As projects go, it has been fortunate to keep afloat with the help of donors. Its horizon for survival, however, has typically not extended beyond one year.

Still, we believe that the project is inching towards becoming policy. SLS as policy would require that every song telecast by Doordarshan, the nation’s public service broadcaster, is shown with SLS. Prasar Bharati, the policy making arm of broadcasting in India, has already permitted SLS on several Doordarshan programmes. But the SLS project remains saddled with the responsibility of finding the funds for SLS operations.⁴

Perhaps, what is standing in the way of 250 million budding readers from blooming, is not an idea or funds. It is bold policy-making.

Notes

1. Sampling and data collection were conducted independently by Nielsen's ORG-Centre for Social Research in September 2002. Dr. Tathagata Bandyopadhyay and the author conducted the analysis.
2. These estimates have taken the findings of the study in the Hindi states, projected them nationally, and then adjusted by considering 10% non-readers to be early-readers and 10% early-readers to be good readers. Some adjustment is necessary since one expects a higher proportion of good and early-readers in many non-Hindi states, especially in the south.
3. This study is being written up. We share only key findings here.
4. The National Literacy Mission (NLM) recently funded one year of SLS on five TV programmes.

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