EdData II

Task Order 20: Measurement and Research Support to Education Strategy Goal 1

Applying Lessons from Behavior Change Communications to the Design of an Intervention Promoting Family and Community Support for Learning to Read

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Abbreviations

ACER   Australian Council for Educational Research
BCC   behavior change communication
DOI   Diffusion of Innovation (theory)
E3   USAID Bureau for Economic Growth, Education, and Environment
EGRA   Early Grade Reading Assessment
GILO   Girls' Improved Learning Outcomes
HBM   Health Belief Model
IEC   information, education, and communication
IYCF   infant and young children feeding (interventions)
JHU   Johns Hopkins University
PRIMR   USAID Primary Math and Reading Initiative
SACMEQ   Southern and Eastern Africa Consortium for Monitoring Educational Quality
SBCC   social and behavior change communication
SCT   Social Cognitive Theory
USAID   United States Agency for International Development

Introduction and Background

This report discusses two overarching themes for the behavior change communication (BCC) activity under Education Data for Decision Making (EdData II), Task Order 20. We begin by presenting a summary of pertinent health behavior theories and studies, which aim to inform the BCC activity and suggest possible techniques and strategies that can be applied to the education sector. We then move to describing a proposed applied research study, which will use the results of the health behavior studies to develop a possible model to be used for implementing a literacy intervention in a developing country.

Ensuring that all school-aged children enroll in and complete primary school has been a key goal of the "Education for All" movement since it was officially launched in 2000. As data on learning outcomes have become more available over the last decade, increased attention has been given to whether children enrolled in school are acquiring basic skills, such as learning to read. As the early grade reading assessment (EGRA) and similar methodologies for assessing foundational literacy skills[1] proliferated, the data they generated showed alarmingly poor levels of reading among students in the first few years of primary school. Further, despite enrollment in school for several years, many children were not learning to read at all. Basic skills such as recognizing letters, correctly pronouncing letter sounds, or reading familiar words, which can and should be learned in the first year of school, were also poorly developed among far too many children (Gove & Cvelich, 2010). Designing and implementing programs to improve the teaching and learning of reading in the early grades of primary school are now a major focus of governments, international agencies, and nongovernmental organizations. Perhaps the boldest example of this effort is the United States Agency for International Development's (USAID's) goal of improving the reading skills of 100 million children by 2015.

Encouragingly, the programs described below were designed to help improve reading instruction in several countries and are showing promising results.

- **Pratham's Read India Program** runs summer camps that improve students' learning levels for reading Hindi and performing math (Walton & Banerji, 2011).

- **Save the Children's Literacy Boost Program** is improving letter knowledge, vocabulary, and comprehension in Ethiopia, Nepal, Malawi, and Pakistan. In Ethiopia, Literacy Boost increased students' letter knowledge by 17% over baseline, compared to only an 8% gain among students in a control group

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[1] Examples are learning assessments by Uwezo in East Africa (Uwezo 2012a, 2012b); assessments in various grade levels and countries carried out by the Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ; see http://www.sacmeq.org/ReadingMathScores); and achievement tests developed by the Australian Council for Educational Research (ACER; see http://www.acer.edu.au/pat-reading) that have been widely applied in India.

(Friedlander et al., 2012). Further, in Malawi, the vocabulary of students who used Literacy Boost book banks was double those of students who did not (Trudell, Dowd, Piper, & Bloch, 2012).

- **USAID projects** in Kenya, Liberia, and Egypt are also improving basic literacy skills. Within the Primary Math and Reading (PRIMR) Initiative in Kenya, although all schools—including those in the control group—showed some gains, the proportion of grade 2 students meeting the benchmark for reading fluency in Kiswahili in PRIMR-supported non-formal schools increased 18 percentage points over and above the increase seen in the control schools (Piper & Mugenda, 2013). The midterm assessment of the impact of a reading program in Liberia being supported under the Liberia Teacher Training Program showed an increase in oral reading fluency of 300% over baseline (DeStefano, Slade, & Korda, 2013). Finally, in Egypt, oral reading fluency for grade 2 students in schools participating in the Girls' Improved Learning Outcomes (GILO) Project almost doubled, from 11.09 to 21.14, compared to an increase of only 23% (from 8.92 to 10.93) control schools (GILO Project, 2011).

The above data are beginning to show that targeted interventions can help improve the teaching and learning of reading in the early grades of primary school. The projects above typically included training for teachers, materials for both teachers and students, and some form of ongoing supervision and support for the implementation of specifically designed instructional programs that target reading. In such programs, attention is focused on helping teachers understand the building blocks of literacy (i.e., phonemic awareness, phonics, vocabulary, oral reading fluency, and comprehension) and equipping them with instructional strategies for developing students' skills in those areas. Training and materials enable teachers to provide daily instruction focused on specific reading skills so that students are spending more of their in-school time practicing these skills and actually reading.

While the early results are encouraging, school systems are still falling far short of having all children learn to read with comprehension after one to two years of schooling. For example, following the implementation of the USAID-funded PRIMR Initiative in Kenya, 24% of grade 1 students in non-formal schools in Nairobi were able to meet the Ministry of Education, Science and Technology's 45-words-per-minute benchmark for Kiswahili oral reading fluency. While this is a significant improvement over the 14% of students who met the benchmark in control schools, it demonstrates that even in the schools receiving the PRIMR reading intervention, the vast majority of grade 1 students were not learning to read fluently enough to ensure a high degree of comprehension. Even if the results achieved by the PRIMR project in Kenya were to double so that 48% of grade 1 students met the Ministry's benchmark for oral reading fluency, half of the students would still not make the mark. Due to this shortcoming, additional intervention may be needed.

The Literacy Boost program recognizes that activity outside of school plays an important role in reinforcing the reading skills that children acquire in the classroom. In addition to training teachers on how to better teach reading, Literacy Boost also raises awareness about the importance of reading and helps communities and families organize opportunities for students to read outside of school. At present, analysis of Literacy Boost's impact has not been able to isolate the contribution of the community-based activities, but the data do show a positive relationship between increased awareness in the community, increased reading outside of school, and student development of literacy skills (Trudell et al., 2012).

Numerous other projects include campaigns to raise awareness and/or promote reading as an important skill children should develop early in primary school.[2] These campaigns come in many forms, including radio or television announcements, community-organized reading "events," or competitions. However, at present no systematic research has explored how this kind of communication, awareness raising, mobilization, or community-based activity leads to sustainable behavior change. If parents are expected to play a greater role in supporting literacy, communities are tasked to reinforce how children become literate, and , in general, more supportive environments for literacy acquisition are to be developed, then what is needed is a greater understanding of how parents, other adults, and children interact—both with each other and with languages—during the crucial early years when children are expected to build language and literacy skills.

This paper reviews the current literature on behavior change communications, examines the research from the health and education sectors to identify effective behavior change strategies, and proposes a research design that draws on effective strategies to test the impact of behavior change communications on how adults and children interact in relation to language and literacy development and to examine how these interactions contribute to children learning to read.

Decades of research inform our approaches to training teachers, improving instruction, increasing the availability of materials and, in general, developing school environments that contribute to improved learning. However, less research is dedicated to understanding the out-of-school interactions and activities that also support learning. There is now a large and convincing body of literature showing that achievement in school is strongly related to parents' levels of education, a family's socioeconomic status, the availability of reading material in the home, and other family characteristics. It also has firmly proven that the level of children's language development (which is correlated to their family dynamics) when they enter school is a strong predictor of whether the children will succeed in the classroom. Furthermore, we know that regularly speaking to children helps them to develop language, while regularly reading to children helps them

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[2] For example, under EdData II alone, several task orders with experimental reading interventions—EGRA Plus: Liberia; the Primary Math and Reading (PRIMR) Intervention in Kenya; and *Tout Timoun Ap Li* (ToTAL) in Haiti—have introduced techniques noted in this paragraph.

learn to read. What we need to learn more about is which out-of-school behaviors and interactions contribute most to language and literacy development, especially when students are in the first few years of primary school. Finally, and just as important, we need to understand how to best promote, support, and reinforce these interactions and behaviors in low-resource developing country settings.

Methods

A literature review was conducted to identify relevant studies in the field of behavior change communications. This review included a core group of recent and relevant studies mainly from the past five years, although a few earlier studies were included because of particular interest. These studies were reviewed in depth, and the references were scanned to identify additional literature. Three main categories of literature were identified, including studies of health BCC interventions, BCC theory and practice articles, and education studies focused on early grade language and literacy. In the course of the review, other topics, such as time use studies, were explored.

Health BCC Intervention Studies

The POPLINE reproductive health database and the PubMed search engine for biomedical literature were searched for intervention studies that fit the following inclusion criteria:

1. Published since 2009

2. Reported on BCC interventions undertaken in developing countries

3. Demonstrated behavior change, not just changes in knowledge, attitudes, or intention

4. Addressed behaviors that either

   ➤ are normally performed at a household or community level and involve children (e.g., nutrition, face washing, hand washing, home water treatment, bed net use, and other child survival interventions); or

   ➤ focused primarily on mothers, such as family planning and maternal/neonatal health.

A core group of high-quality studies was selected for in-depth review. Where possible, these included large sample sizes, randomization, control groups, and positive findings. Preference was given to studies published in high-impact, peer-reviewed journals. Several review articles and meta-analyses were included.

Behavior Change Communication Theory and Practice

The same databases were searched for recent papers about current thinking in BCC theory and practice. Core studies from the past five years were selected for in-depth

review. In addition, websites of leading communications organizations were searched, notably the Johns Hopkins University Center for Communication Programs.

Education and Literacy

The reference lists of documents provided by RTI (DeStefano et al., 2013; GILO Project, 2011; Gove & Cvelich, 2010; Piper & Mugenda, 2013; Trudell et al., 2012) were scanned for relevant citations, and POPLINE and Google Scholar were searched to identify studies directly related to early grade reading. In addition, the program of the 2014 Annual Conference of the Comparative and International Education Society was scanned to identify current work focused on early grade reading. The sites of existing programs, including Literacy Boost, Pratham, and Sa Aklat Sisikat, were also reviewed.

Results Part One: Social and Behavior Change Communication for Health

Brief History of Health Communication

In very broad terms, paradigms of health communication have evolved in the past five or six decades from information, education, and communication (IEC), to BCC, to social and behavior change communication (SBCC). IEC focused on delivering information to a target with the assumption that since people want to be healthy, if they are given accurate information, they will reduce damaging behaviors and adopt healthy ones. This may be an effective strategy for a small proportion of people, but IEC as generally practiced did not include a call to action or suggest how to change, or consider social and cultural drivers of health behavior. BCC acknowledges that information is necessary, but not sufficient. It uses context-specific formative research to determine the barriers to behavior change and responds with a variety of techniques designed to empower individuals to change their behavior. SBCC expands BCC by explicitly recognizing the importance of changing social norms, increasing social support for behavior change, and acknowledging that change at the individual level occurs within the concentric circles of influence (i.e., spouse, family, community, and society).

In their 2012 book, *Family planning programs for the 21st century: Rationale and design,* Bongaarts and colleagues noted that successful family planning communication interventions share four characteristics in common: they appeal to aspirations, provide factual information, dispel myths and misconceptions, and aim to motivate the intended audience to action (Bongaarts, Cleland, Townsend, Bertrand, & Das Gupta, 2012, p. 59). Illustrative examples follow for each characteristic.

- **Appeal to aspirations.** The audience is encouraged to look to a better future, with the behavior promoted as one means to that end. For example, a message in family planning programs may be that having fewer children ensures a better future quality of life for parents and children. Similarly, in early grade literacy, a

corresponding message might be that reading helps lead to early and sustained school success for children, with benefits for their future success in life.

- **Provide factual information.** This includes any information that facilitates adoption of the behavior, including techniques, sources of materials, ways to cope with common barriers, and solutions to problems that may hinder sustained behavior change. In terms of learning to read, factual information may include training for parents on dialogic reading (i.e., parents ask children questions and participate in discussions while reading to them), and tips to encourage children who are reluctant to read.

- **Dispel myths and misconceptions.** Depending on the behavior and the population, myths and misconceptions, often the basis of community norms, may act as barriers to the behavior. For example, if a woman believes family planning will make her infertile, she may be less likely to adopt it. Likewise, if parents believe that children do not need to learn to read until grades 3 or 4, they will be less motivated to act. SBCC interventions seek to change those beliefs to ease acceptance of the behavior.

- **Aim to motivate the intended audience to action.** As noted above, simply providing information is not enough to change behavior in most cases. Successful SBCC messages include a call to action and provide cues to action. Therefore, instead of saying, "children should learn to read well by the end of grade 2," the message might suggest, "help your children succeed in school by reading with them every day before the evening meal." A physical object, such as a brightly colored reading log, can also serve as a visual cue to action.

Theories

As noted above, because the health sector has gained considerable experience in BCC, the extensive literature in BCC for health was the primary resource for this study. The hope is that some of the techniques and strategies described will prove adaptable to the education sector as well.

Early efforts in health communication assumed a simple relationship between knowledge and action, i.e., a rational individual will act on information about how to improve his or her health. This view has been replaced by a better understanding of the complex social, cultural, and economic factors at work; what Glanz and Bishop (2010) called "multiple determinants and multiple levels of determinants of health and health behavior." They cited evidence that interventions developed with an explicit theoretical foundation are more effective and that strategies combining multiple theories and concepts often have larger effects.

Two complementary, and sometimes overlapping, types of theories should be considered: (1) explanatory or predictive theories, which examine *why* a particular behavior occurs; and (2) behavior change theories, which focus on *how* behaviors can be changed. Both types of theories are used in designing behavior change interventions. The dominant

explanatory theories in recent years have been the Health Belief Model (HBM) and Social Cognitive Theory (SCT). Behavior change theories and models in common use include the Transtheoretical/Stages of Change Model and the Social Ecological Model (Glanz & Bishop 2010). Diffusion of Innovation and Social Network Theory are frequently used in developing country contexts. Some major crosscutting concepts among all the theories include the importance of environmental and social influences; behavior change as a multistage process, not an event; the distinction between forming an intention and completing and maintaining an action; and the difference between changing a behavior and maintaining it (Glanz & Bishop 2010). Each theory is described in more detail below.

Explanatory and Predictive Theories

Explanatory and predictive models are essential for guiding the formative steps of designing an intervention. Without a clear understanding of why people do or do not perform a particular behavior, interventions are not likely to succeed.

The **Health Belief Model** suggests that an individual's readiness to take action is a function of the person's perceived susceptibility to the condition, perceived severity of the condition, the benefits of and barriers to taking action, cues to action, and self-efficacy. The HBM is most often applied to prevention related and asymptomatic conditions, where immediate positive feedback from the behavior change is not likely.

Social Cognitive Theory is an updated version of social learning theory that explains behavior in terms of the continual interactions among individual factors, environmental influences, and behavior. In this model, people learn not just from personal experience, but also by observing others' actions and results. Key constructs include observational learning, reinforcement, self-control and self-efficacy, as well as the notion that a person can be both an agent of change and a responder to change (i.e., reciprocal determinism). Behavior modification based on SCT often includes a process of modeling, rehearsal, and feedback on performance, as well as cues to action, goal-setting, behavioral contracting, and self-monitoring.

For example, a responsive feeding intervention in a food-insecure region of Bangladesh used social cognitive theory to improve mothers' recognition of child cues and psychomotor abilities, in an effort to improve mothers' verbal responsiveness and to encourage children to self-feed. The six-session intervention included modeling, coached practice, problem solving, and peer support. In a group setting, peer educators demonstrated feeding techniques with one child, and then coached mothers as they practiced with their own children. Discussion during the group session included problem solving and message reinforcement, and special emphasis was placed on mothers' verbal responses to their children after they took or refused a mouthful (Aboud, Shafique, & Akhter, 2009).

The Health Belief Model and Social Cognitive theory are two dominant predictive theories, but a number of others are often used. Fishbein reviewed HBM, SCT, and several other major behavior prediction theories,[3] and concluded that a limited number of variables are key to understanding and predicting behavior. He proposed an Integrative Model based on these variables that usefully illustrates relationships among the factors that influence whether or not a person performs a desirable behavior, such as hand washing; or stops an undesirable behavior, such as smoking (Fishbein, 2000; Fishbein & Cappella, 2006). To apply the model, first the specific behavior must be defined, based on four elements: the action, the target, the context, and time. As an example of the four elements, if the behavior is getting a mammogram, the action is "getting," the target is the mammogram; the context is a radiology office, clinic, or other medical venue,; and the time refers to when a woman gets a mammogram (e.g., once a year, in the next three months). Using this four-element model for early grade reading, the desired behavior might be defined as follows: the action is reading, the target is a non-school book, the context is at the child's home, and the time is every day for 30 minutes.

Figure 1.   An Integrative Model
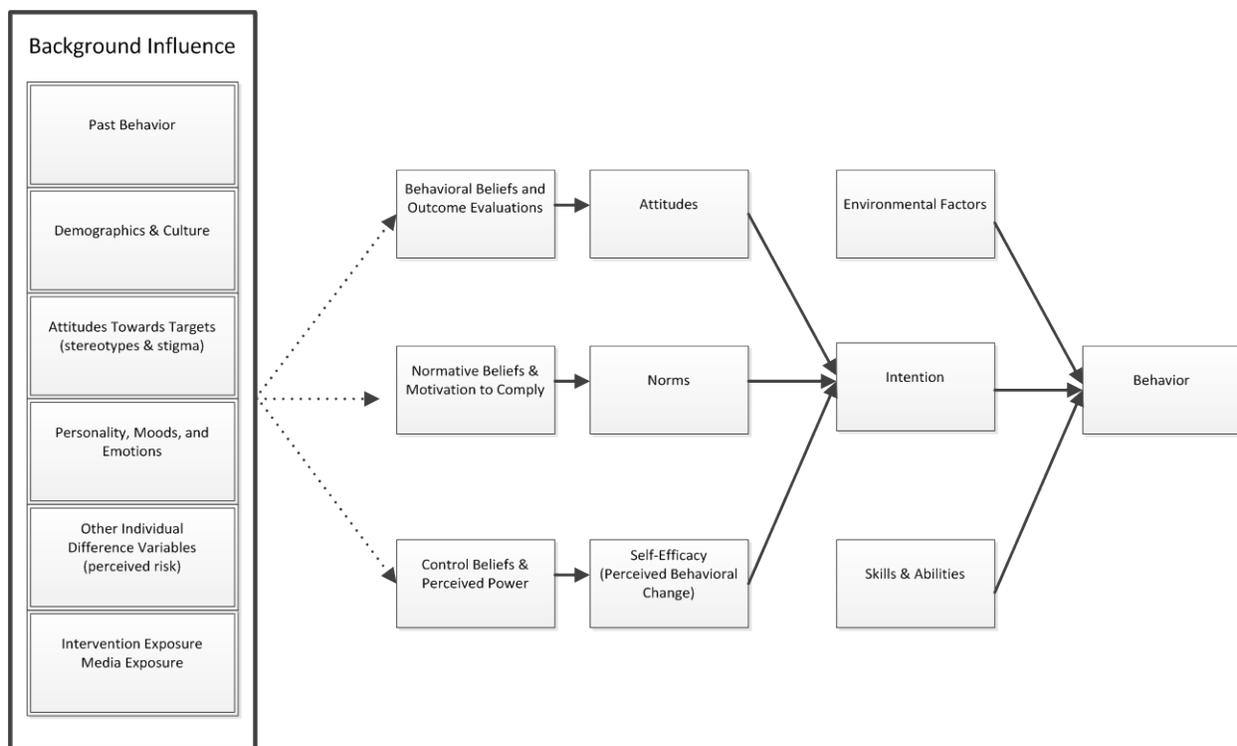
Source: Fishbein & Capella (2006).

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[3] Theory of Planned Behavior; Theory of Subjective Culture and Interpersonal Relations; Transtheoretical Model of Behavior Change; Information/Motivation/Behavioral-skills model; Health Belief Model; Social Cognitive Theory; Theory of Reasoned Action (Fishbein, 2000; Fishbein & Capella, 2006).

Applying Lessons from BCC to Reading Interventions

As illustrated in Figure 1, intention, environmental factors, and skills all directly affect the behavior, so all must be considered in any behavior change intervention. Notably, intention is the only element out of the three that can be influenced solely through communication. Therefore, understanding the factors that influence intention is critical to designing effective interventions. Intention is directly influenced by three categories of factors:

- attitudes (i.e., a person's overall favorable or unfavorable feelings towards the behavior),
- norms (i.e., perceptions of what others think one should do and perceptions of what others are doing), and
- self-efficacy, (i.e., confidence in one's ability to perform the behavior, even under difficult circumstances).

Each of these three factors is in turn influenced by the person's beliefs, and, beliefs are the most effective target for persuasive communications (Fishbein & Cappella, 2006). For example, a belief that influences attitudes might be, "my child will do better in school if she learns to read well by second grade," or "my child should not spend time reading for pleasure when there are chores to be done." Alternatively, a normative belief would be, "my neighbors will think I am a bad mother if I don't read with my child," while a control belief would claim, "I don't know how to read so there is nothing I can do to help my child learn to read." Identifying these beliefs before the intervention is designed is a key step in formative research.

A 2008 publication from Johns Hopkins University's Center for Communication Programs (Salem, Bernstein, Sullivan, & Lande, 2008) drew from various theories to summarize eight factors that best explain and predict behavior:

1. Intention to perform the behavior
2. Environmental or external constraints and barriers
3. Skills needed to perform the behavior
4. Attitude or belief that the benefits of the behavior outweigh the risks or costs
5. Perceived social or normative pressure
6. Self-efficacy
7. Self-image
8. Emotional reaction.

Factors 1–3 directly influence behavior, while factors 4–7 are influenced by beliefs and in turn influence intention. Note that factors 4–8 align with the Integrative Model described above. In the Salem et al. publication, factor 7 (self-image) would fall into the beliefs category in the Integrative Model, whereby people have certain beliefs about how a given behavior might affect their self-image (for example, "if I read to my child, I will see

myself as a good parent," or "smoking makes me cool so I don't want to quit"). Conversely, factor 8 (emotional reaction) would fall into the background influence category. It should be noted that beliefs can be strongly influenced by emotion, which is why behavior change communication often seeks to elicit an emotional reaction.

The Integrative Model will be most useful for identifying the determinants of early grade reading behaviors in the target communities and for identifying particular beliefs that can be changed or reinforced with communication messages. Note that some aspects of the Social Cognitive Theory, specifically the interactions among various behaviors and beliefs, will be useful to understand the family and community dynamics that will affect the intervention.

Behavior Change Theories

Once behaviors are understood, a theory of behavior change can guide the strategies to be used in an intervention. The **Transtheoretical/Stages of Change** model describes the steps of behavior change, from pre-contemplation, when the person sees no need or interest in changing, through contemplation, preparation, action, and maintenance. This model is useful for identifying the point in the process at which intervention will be most effective. It can be applied effectively to individuals, families, and communities.

In a successful study to promote hand washing or the use of hand sanitizer in low-income communities in Dhaka, Bangladesh, researchers used the Stages of Change model to phase the intervention (Luby et al., 2010). They started with community meetings designed to create basic awareness and move residents from the pre-contemplation to the contemplation stage. In the next phase, field workers explained and demonstrated the use of soap or hand sanitizer to move the residents to the preparation stage. Finally, the researchers provided supplies (i.e., soap and hand sanitizer) and cues to action (i.e., posters) during the action and maintenance stages. The Dhaka intervention is described in more detail below.

Social Ecological Models function as both "why" and "how" theories by emphasizing the multiple levels of influence (e.g., personal, community, and public policy), and the idea that behaviors shape and are shaped by the social environment. This emphasizes the need to create an environment that supports change, and is especially important in more collectivist societies where the family and community units outweigh the individual. Panter-Brick et al. (2006) used a Social Ecological Model to design an intervention to promote bed net repair in Gambia. The model was used "to make explicit the determinants of behavior change, the strategy for promoting behavior change, and the evaluation of the intervention" (p. 2823). For example, formative research showed that bed net use was high and that repairing bed nets was valued, but repairs were often not done due to lack of time or money. In this intervention, locally composed songs served as an effective trigger to immediate action by articulating pre-existing social priorities for protecting the health of women and children through net repair. The social ecological

view allowed researchers to identify and capitalize on existing community and cultural beliefs and to promote the desired behavior.

Diffusion of Innovation (DOI)/Social Network Theory. Everett Rogers first proposed his diffusion theory in 1962, positing that adopters of any new innovation or idea can be categorized based on standard deviations from the mean as innovators, early adopters, early majority, late majority, and laggards. Willingness and ability to adopt an innovation depends on awareness, interest, evaluation, trial, and adoption. DOI proposes a five-stage process of behavior change, similar to the Stages of Change model, which includes knowledge, persuasion, decision, implementation, and confirmation.

In their 2012 review, Aboud and Singla noted that in the DOI model, innovators and early adopters tend to be better educated, stating:

> they may be convinced by rational arguments, have a social network that supports change, and some self-efficacy to try the new practice before accepting or rejecting it. In contrast, late adopters may not adopt a new practice or product quickly because it requires some cognitive effort and social support to recall the message in the right context, to inhibit the old habit, and to initiate the new one. (p. 590)

DOI is often used in developing countries because it focuses on social structures and networks. Social Network Theory extends and accelerates DOI, and additionally includes an effort to recruit isolated individuals and cliques. As Goldberg (2013) wrote, the relationships within social networks are exceedingly important to health because they transfer knowledge about illnesses and diseases and also communicate what behavior is "socially acceptable and 'normal'" (p. 1400).

In a Wood and colleagues (2012) report about an intervention designed to encourage women to adopt and sustain home water treatment methods, they found that "while many psychosocial models of behavior change exist, stressing different factors such as the social environment, personal susceptibility, or self-efficacy, none is multifaceted enough to explain the myriad factors influencing human behavior" (Wood, Foster, & Kols, 2012, p. 635). They devised a framework (Figure 2) that integrated three behavior change theories: Transtheoretical/Stages of Change, Diffusion of Innovation, and the consumer purchase decision process. The last model was drawn from the marketing field because their intervention depended on a socially marketed water treatment product.

Figure 2.   Behavior Change Continuum

Source: Wood et al. (2012).

The framework illustrates the process of behavior change, wherein each phase (i.e., awareness, action, and maintenance) corresponds to the stage in the Transtheoretical/Stages of Change model. Social reinforcement from relatives, friends, neighbors, health promoters, and children played an important role in promoting consistent use and diffusing the new behavior to change community-wide norms.

Developing Quality SBCC Programs

A number of tools exist to guide the process of developing, implementing, and evaluating an SBCC intervention. One of the most well-known is the "P-Process," a tool for planning strategic, evidence-based health communication programs, developed by Johns Hopkins University (JHU) researchers and recently updated by JHU's Health Communication Capacity Collaborative. The P-Process has five steps:

> Step 1: Inquire
> Step 2: Design strategy
> Step 3: Create and test
> Step 4: Mobilize and monitor
> Step 5: Evaluate and evolve[4]

The authors of the 2013 update warned that "the P-Process is a tool that is only as useful as the data and thinking that go into each step" (Health Communication Capacity Collaborative, p. 3). This is an important caveat since, despite the wealth of available literature on behavior change, many programmers pay too little attention to theory. In their 2012 review of recent research on health behavior change in developing countries, Aboud and Singla wrote that effective behavior change interventions need to build on three categories of data: theories of behavior change, evidence for the success and failure of past attempts, and an in-depth understanding of the target audience. Currently, many programs depend on logic models that link available resources with activities that will logically lead to desired outcomes. However, "behaviour does not logically follow from activities and activities do not logically follow from resources" (Aboud & Singla, 2012, p. 590). The P-Process considers theory to be an essential crosscutting concept. The

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[4] Sanghvi, Jimerson, Hajeebhoy, Zewale, & Huong (2013) described in detail a very similar process that was used to design infant and young children feeding interventions in Bangladesh, Ethiopia, and Vietnam.

evidence from past attempts and in-depth understanding of the audience are part of the first step (i.e., inquire), with the rest of the process building on this foundation.

Features of Successful Interventions

Overall, the literature shows that certain features are found in most successful SBCC health interventions. However, it is important to also clearly state some of the constraints. Behaviors can be difficult to change because they are generally habitual (performed without much thought), normative (based on powerful forces of traditional and social approval), and preventive (behaviors may lack a salient, immediate outcome) (Aboud & Singla, 2012). Complex behaviors are more difficult to change than simple ones (Bongaarts et al., 2012), and adopting new behaviors, or replacing old behaviors with new ones, is generally easier than prompting someone to stop doing (or avoid starting) an unhealthy behavior. This suggests that presenting home literacy behaviors as new, or as an extension of existing behavior, might be a promising approach. In addition, as Wood et al. (2012) noted in the context of a home water treatment intervention, new habitual behaviors that require fundamental changes in routines are more difficult to change than one-off behaviors. This suggests that a home literacy intervention should include skills building and cues to promote the habitual behavior, such as connecting it to an existing habitual behavior such as homework. Some overall features of successful interventions are described below, with examples from the health domain.

Multiple Reinforcing Communications Channels and Techniques

SBCC interventions that use a single channel or technique are generally less effective than multiple-channel models. Core interventions required for achieving results in infant and young child feeding programs include interpersonal communication, community mobilization, mass media, and evidence-based policy dialogue and advocacy (Baker, Sanghvi, Hajeebhoy, & Abrha, 2013). Briscoe and Aboud (2012) examined 24 studies that had success promoting four health behaviors: the use of bed nets, hand washing, face washing, and complementary feeding. All of the studies showed effectiveness in observed behavior, self-reported behavior, or objective health measures. Knowledge was also measured in 10 of the examined studies. The authors organized the techniques used into six categories: information, performance, problem solving, social support (from peers and/or authority figures), materials, and media. They noted that "the most successful interventions use three or even four categories of techniques, engaging participants at the behavioral, social, sensory, and cognitive levels" (p. 612).

The most common techniques used were performance; social support; materials, in the form of supplies needed to perform the behaviors; and "small media," such as posters, picture cards, and community-level entertainment approaches. Media channels include mass media, such as radio or television; small media; and electronic media, such as the Internet or mobile phones. Information, performance, and social support can be achieved through individual approaches such as peer counseling, and community-level approaches

such as events and meetings, often featuring entertainment as well as local opinion leaders to champion the behavior.

For example, Briscoe and Aboud cite the hand-washing intervention in Bangladesh by Luby and colleagues that increased hand washing with soap after fecal contact from less than 30% at baseline to more than 85% post-intervention. As described above, field workers implemented a series of activities designed to move participants along the phases of the Stages of Change model. In each phase, the field workers used different techniques:

Information: Field workers held small group meetings in target compounds discussing the results of a formative assessment in an effort to raise awareness about how often people washed their hands, as well as the relationship between hand-washing and child health. This phase was aimed at moving compound members from the pre-contemplation to the contemplation stage

Materials, Demonstration: Field workers placed soap or hand sanitizer at key locations in the compound, such as cooking areas, latrines and water sources, and demonstrated how and when to use it. This phase was designed to move participants from the contemplation stage to the preparation for action stage.

Social Support, Media: The field staff then assembled mothers from each household and asked them to encourage and remind each other to wash their hands at critical times, to move to the action stage. Field workers also placed posters at key locations to serve as cues to action.

Social Support, Materials: Field workers visited the compound two to three times a week during the intervention to replenish supplies, and place a sticker on the door of each home that had used the most supplies. This supported both the action and the maintenance phases of the Stages of Change model.

Community and Group Approaches

The importance of group approaches cannot be overemphasized, especially in developing countries. Social norms and pressures have a major influence on behavior, which is key for initiating the behavior and reinforcing it through feedback to make successes visible, and supporting maintenance. Several studies (detailed below) have shown strong results with women's groups that used a participatory learning and action intervention approach in domains, including maternal health, child health, and infant/young child feeding. Many of these approaches can be useful in developing home literacy interventions, since they involve the mother-child dyad and home-based behaviors, promoted through a group and community-based intervention.

- Prost and colleagues (2013) reviewed interventions that used learning and action cycles in women's groups to improve maternal and neonatal health, and found substantial reduction in neonatal and maternal death in four low-resource settings (e.g., Bangladesh, India, Malawi, and Nepal). They developed a working

hypothesis, stating, "the intervention builds the capacities of communities to organize and mobilise to take individual, group, and community action to address the structural and intermediary effects of health" (p. 1741).

- In a Bangladesh study, government field workers organized group discussions with women in the homes of opinion leaders. This social network approach was twice as effective as a conventional field worker control at increasing the use of modern contraception (Kincaid, 2000). The use of opinion leaders' homes as discussion locations is important because it offers not only community support, but also implicit and explicit endorsement of the behavior by leaders, which is important in changing community norms.

- A large study in rural Malawi found that a women's group intervention mobilizing communities for improved maternal and child health had substantial effects on maternal, neonatal, and infant mortality. The women's group intervention showed results with and without the addition of individual peer counseling (Lewycka et al., 2013).

- A maternal and neonatal health intervention in rural Nepal used interpersonal peer communication via trained community volunteers. Although this did not include a formal group approach, the intervention included a booklet of laminated cards conveying key messages. Results of a qualitative process evaluation showed that the booklet was frequently shared, discussed, and consulted among household and community members. Even though the initial approach was not group-based, the booklet served as a cue for participants to discuss the issues with their existing social groups, such as families, households, and neighbors (McPherson et al., 2010).

Emotion: Appeals to the Heart as Well as the Mind

The idea that successful SBCC should appeal to emotions would seem to flow naturally from the idea that rational or cognitive approaches are insufficient, but it is surprisingly absent in many interventions. In general, the less willing and able the audience is to change, the more the intervention has to be creative, entertaining, and emotive (Aboud & Singla, 2012). "Edutainment" approaches such as soap operas, skits, and songs use drama and music to evoke an emotional response where positive emotions are most commonly elicited. Although negative approaches using fear or threat appeals are effective in some domains (such as anti-tobacco and road safety), they are seldom used for promoting positive behaviors. As noted earlier, in Gambia, Panter-Brick and colleagues (2006) used locally composed songs to encourage the repair of bed nets. The songs depicted mosquitos as an enemy and encouraged the repair of bed nets to protect children and families from disease. The use of a culturally compelling approach promoted positive feelings in the community about the action, while also ensuring that the message was repeated frequently.

Results Part Two: Links to Literacy

Interventions for Early Grade Reading Support

Although many interventions have examined the in-school components of supporting literacy in developing countries, very few have focused on out-of-school interactions. The Literacy Boost program is a notable exception. It has three components: (1) measuring children's reading skills, (2) training teachers, and (3) getting communities involved. The communities are mobilized to provide books and supplies; sponsor camps, reading buddies, and other learning activities; and organize workshops to help parents support their children's learning. In Literacy Boost's Malawi initiative, half of the parents who attended workshops were illiterate, but their children showed greater learning gains compared to children whose parents did not attend workshops. Similarly, in Pakistan, parents' participation had a significant impact on improvements in children's reading.

The Sa Aklat Sisikat reading intervention in the Philippines was a short-term, school-based program designed to improve fourth-graders' reading skills by providing materials, teacher training, and support for a 31-day reading program. The short-term results—during and immediately after the intervention—were impressive. However, by the second follow-up survey (seven months after the baseline) the results had somewhat waned.[5] Overall, the intervention found that children in the groups provided with materials and teacher training had read more books at the first and second follow-up surveys than their peers who were not in the reading program (Abeberese, Kumler, & Linden, 2011).

The Pratham program in India included an intervention in which volunteers from the communities were trained in basic skills for teaching reading so they could hold after-school reading camps in the villages for two hours a day, over a period of two to three months. The reading camps were successful in mobilizing volunteers and the community. Furthermore, children who attended the camps made substantial progress that was maintained at the one-year follow-up (Banerjee, Banerji, Duflo, Glennerster, & Khemani, 2008). Thus, the reading camps served a double function. First, they directly improved children's reading skills, and second, the camps indirectly raised community support and awareness about the importance of reading.

Some programs that are primarily school based have included efforts to inform and involve parents in literacy. For example, the "Reading is FUNdamental" program in an impoverished, multilingual school in South Africa included family literacy workshops for parents, which were designed to promote the importance of reading, and to encourage parents to read with their children, and to make time and space available in the home for homework. However, the independent effect of this component was not measured (Pretorius & Currin, 2010).

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[5] For example, the authors noted that the pupils' reading assessment scores had improved by 0.13 standard deviations by the program's conclusion, and the effect size still measured 0.06 standard deviations at follow-up some three months afterward.

Research on Literacy Related Parent-Child Interactions

The effects of parent-child interactions on language and literacy development have been studied extensively in the United States in a variety of cultural and socioeconomic contexts. In 1995, Hart and Risley published results that compared the number of words spoken to very young children by professional, college-educated parents as compared to working class parents and parents receiving welfare. The researchers found that the college-educated parents spoke on average 487 words to their children per hour, compared to 301 for the working class parents and 176 for the parents receiving welfare (excerpted in Hart & Risley, 2003). If available, comparable data from developing countries could suggest whether interventions are needed to support language acquisition in very early childhood to form a foundation for literacy.

Several studies have examined different types of literacy interaction between parents and preschool children, from informal storybook reading to the more formal teaching of sounds, letters, and decoding skills. Sénéchal and LeFevre (2002) noted that continuous exposure to books at home was an important component in reading development, but that the role of parental teaching was less clear. However, a 2008 meta-analysis by Sénéchal and Young provided a useful framework of activities after they found that two types of activities—parent tutoring with activities and parent listening to the child read books— enhanced children's literacy skills. The authors defined reading acquisition as referring to both the early literacy behaviors of children in kindergarten and the more advanced behaviors of children in Grade 3. These behaviors include

- knowledge of letter names and sounds
- early decoding abilities
- phonological awareness
- word recognition and reading comprehension in grades 1 to 3.

The activities measured in the meta-analysis included:

- **Training parents to tutor their children to read using specific activities.** This activity had a strong effect on reading acquisition and was twice as effective as encouraging parents to listen to their children read. It depended on a high level of training resources, parent commitment, and basic literacy from the parents. However, the Pratham experience showed results with trained community volunteers, suggesting that the adult tutor does not have to be a parent.

- **Encouraging and training parents to listen to their children read books.** This measure was also effective, although the researchers noted that the activity assumed a basic level of reading fluency among parents.

- **Encouraging parents to read books to children.** The research results linking this effort to reading acquisition were surprisingly weak. Although having parents read to their children seemed to have a clear effect on oral language development, the link to reading remained unclear.

In another seminal study, Heath (1982) compared literacy-related home events (such as bedtime stories) in three categories of home settings: middle-class, school-oriented homes; and two working-class settings characterized by other styles of interactions related to speech and reading, with less overall emphasis on literacy. Heath concluded that a "strict dichotomization between oral and literate traditions is… not an accurate portrayal of reality across cultures" (p. 73) and that "a unilinear model of development in the acquisition of language structures and uses cannot adequately account for culturally diverse ways of acquiring knowledge or developing cognitive styles" (p. 73) Heath called for an ethnographic approach that goes beyond such features as class and parental education and examines the way cultures take meaning from the written word. Similarly, in a 2002 study, Serpell, Sonnenschein, Baker, and Ganapathy highlighted the importance of family culture for reading activities and suggested that differences in home literacy support cannot be adequately explained by income or ethnicity. Since the Heath and Serpell et al. studies took place in developed countries, with parents who had at least basic literacy skills, it is unclear how applicable the research would be for interventions in developing countries. Therefore, formative research will be essential for designing effective home reading interventions in developing countries.

Research on Household Dynamics and Time Use

Any intervention that aims to add a new household activity must consider issues of time and resource allocation in households. Parents' expectations and aspirations for their children's education also factor into their involvement and support of education. These issues are likely to be context specific, but the literature identifies some issues to be considered.

An earlier study conducted in Bangladesh (Amin & Chandrasekhor, 2009) examined parents' household-level "private" investments in their adolescents' education, primarily time spent studying and private tutoring. It showed, in line with similar research, that time students spent working (at domestic or other chores, or for pay outside the family) varied inversely with time spent studying. Notably, boys had about 30 more minutes of discretionary study time per day than girls. Further, girls attending primary and secondary school were significantly more likely to spend time working. Poverty, gender, and work did not affect time spent in school. However, students living in households with children under age five were more likely to spend time working, while those living in households with members over age 65 were significantly less likely (Amin & Chandrasekhor, 2009).

A study in Ethiopia (Orkin, 2012) looked not just at the quantity of labor children perform, but also at the characteristics that make work compete with schooling for children's time. Ideally, the two activities are complementary, but when they compete, children are less likely to receive adequate education. Certain features of both work and school in this setting made it more likely that two activities would be competitive: high costs of schooling; lack of flexibility in local work patterns; effects of family illness that required children to care for family members rather than going to school; scarcity of

work; less divisible work; more tiring work; and the fact that chores and study were both done in the home (Orkin, 2012). A separate study in Ethiopia (Heissler & Porter, 2010) found that children's work was essential to the household economy and that the dynamics within the family were interdependent, rather than focused exclusively on the parent demanding work from the children. The study also found that the type of work done by different children varied considerably based on gender, birth order, age, and household composition.

Parents' educational aspirations for their children are an important aspect of parental involvement. A study in Kenya found that 89% of parents wanted their children to achieve post-primary education, and although aspirations were higher among parents living in nonslum areas, overall, parents aspired for their children to achieve a higher educational level than they had achieved. The parents' education and perceived academic ability of their children were linked with higher educational aspirations (Oketch, Mutisya, & Sagwe, 2012).

Magnitude of Behavior Change

Relatively few studies assess the effect size or magnitude of behavior change. Snyder (2007) stated that, "in the United States, health communication campaigns that include use of the mass media and avoid coercion[6] have an average effect size of about 5% points ($r = .05$)" (p. S33). Typical effect sizes ranged from 15% points for seatbelt use, to a low of 1% to 2% for youth drug programs. Snyder also noted that, "across health issues, campaigns promoting the adoption of a behavior that is new to the individual or replacement of an old behavior with a new one have a greater success rate than campaigns aiming to cease an unhealthy behavior people are already doing or prevent commencement of a risky behavior" (p. S33). The Diffusion of Innovation theory suggests that for a new behavior, as much as 50% of the population (i.e., innovators and early adopters) are most likely to change (Aboud & Singla, 2012).

Applied Research Study

The applied research study that USAID is planning under this EdData II task order will test the impact of behavior change communications interventions on how adults and children interact outside of school (e.g., in the home and community) in relation to language and literacy development. The study will involve designing an SBCC intervention to be implemented, with the impact to be tested by pre- and post-intervention evaluations. The study will include at least one intervention community and one control community. Components of the proposed study are described below.

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[6] Coercion is defined as legal or regulatory enforcement, such as seatbelt laws.

Assumptions

This study will be based on the best information available on SBCC in developing countries and on what is known about reading acquisition overall. To date, very little research has been done on using SBCC techniques outside of a health context in developing countries. In addition, since encouraging parents to read with children outside of school is a relatively new intervention for many developing countries, no studies have been found on the efficacy of such interventions. Since this intervention study will be breaking new ground, a few assumptions must be made based on existing research.

Children who regularly read outside of school are more likely to read at or above grade level.

While this statement has been true in developed countries, it remains to be seen whether this assumption will hold in resource-poor contexts. For example, homes and environments in industrialized countries are generally print-rich, and most adults have at least basic reading ability. However, neither of these factors is necessarily present in a developing country context.

The desired behaviors will occur primarily at the household and community level.

The lowest level at which reading behavior will change is a dyad; most often a mother and primary grade child, although older siblings, fathers, and other adults may also be included. This seems to be a relatively safe assumption since most young children will need some kind of support and interaction to improve their reading skills.

The interaction will be strongly affected by household dynamics, including competition for time, funds, and attention.

This seems to be another safe assumption, although in the best-case scenario, once parents are convinced that reading is important for their children's education, they will be strongly motivated to contribute time and resources.

Parents and others in the household can increase children's reading outside of school if they perform certain behaviors and have the right information, skills, and supplies.

This intervention will be designed to encourage adoption of the behaviors. As noted above, this is an assumption that has proven true in resource-rich contexts, and this study will help to determine its general applicability.

Research Question

The research question of interest is as follows:

Can interventions informed by successful behavior change models and theories from the health field be used to support and increase out-of-school reading by children in primary grades in low and middle income countries?

Intervention Goals and Objectives

The overall goal of the intervention is to provide primary grade children with opportunities to build and reinforce important reading skills at home and in their communities.

SBCC interventions generally set objectives at two levels—(1) behavioral objectives, and (2) communication objectives. Behavioral objectives refer to what the intervention wants people to *do*. Communication objectives refer to the *beliefs* and *skills* needed to promote, develop, encourage, and help people perform the desired behaviors. For example, a behavior change objective could be to increase the number of women who give birth at a health facility. The related communication objectives could include raising perceptions of the danger of home delivery or increasing knowledge of the steps to be taken to plan for a facility birth.

Behavioral objectives will be designed based on research and expertise from early reading. The communications objectives will be designed using aspects of the Health Belief Model and Social Cognitive Theory. The techniques, channels, and messages will be selected and developed based on the Stages of Change model and Diffusion of Innovation/Social Network Theory. Formative research in the selected setting will be essential to creating the objectives, but for illustration, some possible communications and behavioral objectives for the study are proposed here for three audience segments: primary-grade children, their parents, and their extended family. Some possible activities to support the communications objectives are described below, under "Intervention Design, Step 2: Design the strategy."

Illustrative Behavioral Objectives

- Primary-grade children will read [every day] for at least [xx] minutes outside of school hours, either alone or with a partner or small group.
- Parents of primary-grade children will ensure that their children can engage in reading [every day] for at least [xx] minutes, by providing adequate time, space, light, materials, and other environmental enablers.
- Parents, older siblings and extended family members of primary-grade children will actively and positively support children's reading through daily interactions (e.g., asking children about their reading, reading with them or to them, and tracking their progress)**.**

Illustrative Communication Objectives

- *Why should I perform this behavior?*

The *beliefs* the intervention needs to promote, so that people will form the intention to change their behavior, include

– Raise awareness of the value of reading for early and sustained school success to ensure a better standard of living in the future.
– Promote children's reading and literacy as a shared pleasure and responsibility, with benefits for the community as well as for individuals and families.
– Raise interest and excitement for reading activities and events.

- *How do I perform the behavior?*

  The skills the intervention needs to teach and reinforce, so that people are able to perform the behaviors, include

  – Provide specific information, including activity ideas and skills, on how families can support children's out-of-school reading.
  – Provide specific information, including activity ideas and skills, on how communities can support children's out-of-school reading.
  – Raise adults' confidence in their ability to improve children's reading success, even if they are not literate.

Study Design

The proposed design for this study is relatively simple. At least two communities with existing in-school literacy programs will be selected for an intervention spanning at least one school year. The intervention will consist of a package of activities developed based on formative research, existing literature, and relevant theories of communications and reading acquisition.

One community will be designated as the intervention site and one as a control. If more than two communities can be included, each will be designated as intervention or control. The communities should be comparable in terms of size, socioeconomic and demographic indicators, and location (for example, urban, peri-urban, or rural). The schools serving the communities should be similar, in terms of facilities, teacher-student ratios, instruction quality, reading levels, and other relevant factors. The communities should also be far enough apart geographically to avoid any significant contamination of the control site. Government and other partners should be contacted to determine if any other programs will be implemented during the study term that might bias the results. Both communities will be surveyed at baseline and at the conclusion of the study period. A midterm evaluation will also be done if resources permit. Outcome indicators will be developed as part of the strategy design process.

Although the intervention will be expected to last for at least one school year, it is important to note that several months of formative, design, and pretesting work will be required before the intervention begins. These steps will be guided by the P-Process described above.

Intervention Design

As described above, behavior change is a process in which individuals and/or groups pass through several stages (see Stages of Change and Diffusion of Innovation theories). Developing effective SBCC interventions requires that planners follow a separate process to thoroughly understand the setting, knowledge, attitudes, and behaviors surrounding the issue at hand. This formative work is especially important in new domains, such as family and community support for early grade literacy. This essential formative work is the first of five steps in the P-Process, described above.

Before this process can begin, the preliminary steps are selecting a study site, recruiting partners, formulating a draft budget and timeline, identifying vendors to undertake creative and evaluation work, and engaging community leaders and stakeholders. The in-country partners should be able to advise the team about the involvement of education officials at the national, regional, and local level. A critical element of this will be to ensure that appropriate books are available to the communities and families participating in the study. The following steps assume that the preliminary work has been done.[7]

Step 1: Inquire

This step involves formative research, which builds on the existing data on the community. The research will generally take the form of focus groups and structured interviews with key informants, although quantitative surveys can also be used. The goal is to understand the extent of the problem, and to uncover the intended audiences' barriers to behavior change. These can be economic, social, structural, cultural, educational, or something else entirely. The research should also explore potential facilitating factors to behavior change, including potential messengers and media. As noted above, this step is especially important for planning a novel intervention.

Formative research in communication usually focuses on knowledge, attitudes, and practices (KAP studies) and should be informed by relevant communications theories. For this intervention, the Integrative Model described above can serve as an effective frame for the formative research. For this study, the desired behavior can be broadly stated as "adopting activities in the home and neighborhood that will support early grade children to become fluent, engaged readers." The formative research will include questions on existing skills and environmental constraints, which can be addressed through training, performance, supplies, and other efforts as needed. "Intention" will be examined with questions to elicit and understand the respondents' beliefs in the categories of attitudes, norms, and self-efficacy.

Attitudes could be examined with questions such as

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[7] This section is adapted from Health Communication Capacity Collaborative (2013).

- Do you believe learning to read by the end of second grade is important for your child's future?

- Do you think helping children with their reading is part of a parent's job?

- What do you see as the benefits in taking action to support reading, such as spending time reading with your child each day or sending children to a neighborhood reading group?

- What would it take for the benefits to outweigh barriers to action?

Questions on norms might include

- How often do your neighbors and friends read with their children?

- Do you think your relatives would respect your parenting if they knew you were taking action to improve your child's literacy?

Self-efficacy could be studied by asking

- Do you think you can have an impact on your child's reading ability?

- What do you think you would need to learn in order to be able to help your child learn to read?

- Do you have family or neighbors who would be willing to help you or your child with reading support?

Social Cognitive Theory explains behavior in terms of the continual interactions among individual factors, environmental influences, and behavior. For the formative research, questions framed by SCT will focus on the environmental constraints category in the Integrative Model to examine the interplay of individual and environmental factors affecting behavior. For example, how much time does your child spend on schoolwork each day? How would it affect the family dynamics and economy if your child spent more time on reading activities each day? What is the daily routine in the household? Do any adults in the family know how to read?

The formative research should also identify factors related to behavior change theories, as opposed to the explanatory theories incorporated into the Integrative Model by examining where the individuals and community fall in the Stages of Change model. If individuals and the community were unaware of the need for reading support for primary grade children, they would be in the "pre-contemplation" stage. Therefore, the first step in the strategy would be to inform them about the problem and solution, which is also the first of the five steps in the Diffusion of Innovation model (see "Behavior Change Theories," section on DOI Theory, pp. 10–11 above).

Step 2: Design the strategy

Armed with the results from the formative research and previous data, the next step is to design the intervention strategy. This will include refining the theoretical basis and the

behavioral and communication objectives based on the formative research, as well as clarifying target audience segmentation and determining program approaches, activities, and channels. This step should include the on-the-ground implementing partner and, as appropriate, government and community stakeholders. Strategy design needs to balance needs and resources in terms of time, staff and funding. Additionally, budgets, timelines, work plans, and monitoring and evaluation plans are an important output of this step. Requests for proposals from any outside vendors, such as creative or research consultants or agencies, should be developed and issued at this stage.

Although the activities to be selected will be informed by the formative research, the literature, behavior change theory, and existing interventions provide some basis for proposing interventions. Some possible proposed activities for this intervention, the corresponding communication objectives, and the categories of techniques are listed in Table 1. Note that they adhere to Briscoe and Aboud's 2012 review by combining a variety of techniques.

Table 1. Sample Communication Activities and Strategies

Activity	Communication Objective(s)	Technique(s)
Community meetings and events	• Raise awareness of the value of reading for early and sustained school success to ensure a better standard of living in the future. • Promote children's reading and literacy as a shared pleasure and responsibility, which benefits the community as well as individuals and families. • Raise interest and excitement for reading activities and events. • Provide specific information, including activity ideas and skills, on how communities and families can support children's out-of-school reading.	Information Social Support
Training for parents and/or community volunteers	• Provide specific information, including activity ideas and skills, on how families can support children's out-of-school reading, which addresses how to perform the behaviors. • Raise adults' confidence in their ability to improve children's reading success, even if they are not literate.	Information Performance Social Support
Small media: posters, banners, flyers, skits, songs, promotional items	• Raise awareness of the value of reading for early and sustained school success to ensure a better standard of living in the future. • Promote children's reading and literacy as a shared pleasure and responsibility, which benefits community as well as individuals and families. • Raise interest and excitement for reading activities and events.	Information Media
Reading	• Promote children's reading and literacy as a shared pleasure and responsibility, with benefits for the	Performance

Activity	Communication Objective(s)	Technique(s)
groups/camps/ buddies	community as well as for individuals and families.	Problem Solving Social Support
Small group meetings for parents/ volunteers	• Provide specific information, including activity ideas and skills, on how families can support children's out-of-school reading, which addresses how to perform the behaviors. • Raise adults' confidence in their ability to improve children's reading success, even if they are not literate.	Performance Problem Solving Social Support
Book swaps, book banks, book creation	• Raise interest and excitement for reading activities and events. • Promote children's reading and literacy as a shared pleasure and responsibility, which benefits the community as well as individuals and families.	Social Support Materials
Learning resources	• Provide specific information, including activity ideas and skills, on how families can support children's out-of-school reading; addresses how to perform the behaviors. • Raise adults' confidence in their ability to improve children's reading success, even if they are not literate.	Materials

Step 3: Create and test

This step combines art and science, as the team develops the communication products to be used. This may include media and print materials, participatory processes such as community events and group meetings, trainings, workshops, and more. The creative and program team will work together to develop draft concepts and materials, including several options to be pretested. Concepts should include a program name and/or slogan that unify the activities. Materials will include promotional items and learning resources to be developed (or adapted) by education experts. Ideally, the draft concepts and materials will be presented to key stakeholders in a meeting or design workshop, and their suggested revisions will be incorporated into the drafts before pretesting.

The draft materials should then be pretested with audience members, usually through focus groups and/or piloting. For example, proposed slogans or names should be tested with focus groups, the proposed workshop curriculum should be piloted with a test group of adults, and proposed reading/literacy activities should be piloted with children in the target group. Once the key issues uncovered during pretesting are resolved, the final materials can be produced.

Step 4: Mobilize and monitor

In this step, the program will be implemented and monitored by the partners as laid out in the work plan. Monitoring will involve ensuring that the activities are being carried out as planned and on schedule, and to solve any problems that may arise.

Step 5: Evaluate and evolve

The evaluation plan should be developed as part of Step 2 and a baseline survey undertaken before any activities are implemented. If possible, a midterm evaluation should be conducted to determine if any major midcourse corrections are needed. A post-intervention survey will be implemented to determine the effectiveness of the intervention. Finally, a follow-up evaluation should be planned to determine how well intervention effects are maintained over time.

Next Steps

This review provides a framework for designing an applied research study that will consist of creating and implementing a theory-based SBCC intervention, and using the processes and features described above, in line with available goals and resources. The next steps will include reviewing the proposed study goals and objectives, soliciting input from education experts and others who have implemented similar programs, and reviewing the overall plans based on timelines and resources. Once the plan is revised, the steps described under "intervention design" can proceed.

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