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Applying the Seven Principles of Learning to Development Communication

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The American University in Cairo

School of Global Affairs and Public Policy

**APPLYING THE SEVEN PRINCIPLES OF LEARNING TO
DEVELOPMENT COMMUNICATION**

A Thesis Submitted by

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To the Department of Journalism and Mass Communication

in partial fulfillment of the requirements for the degree of

Master of Arts in Journalism and Mass Communication

Under the supervision of

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<u>Acknowledgment</u>

Abstract

Development communication originated as a post-war term meaning "the application of communication strategies and principles in the developing world.". As time went by, various definitions of development communication emerged, each reflecting its political agenda and interests. A more recent definition states that development communication aims to remove constraints for an increasingly participatory and equal society.

Sustainability and inclusivity are at the heart of effective development. The current development communication paradigms are the top down Dominant paradigm which is criticized for not being inclusive and the bottom up Participatory paradigm which is criticized for not being sustainable.

Based on the Seven Principles of Learning, this study suggests a new learning paradigm for development communication which bridges the gap between both afore mentioned paradigms. The suggested paradigm   is more audience-centric than the current dominant paradigm and more structured than the current participatory paradigm. The suggested learning paradigm builds its conceptual model around the development communication campaign audience's internal and external factors that directly influence their decision making. Those factors also determine if they receive the message and how they process it. The researcher conducted twelve in-depth interviews with four categories of development communication professionals (advertising experts, public relations experts, campaign owners, and on-the-ground NGO development professionals). Each interviewee has over twenty years of experience in their field. In the experts' interviews,

the researcher discussed the seven principles of the learning paradigm, getting their insights and experience in applying them to development communication.

This study first sheds light on previous development communication theories and elaborates on the missing links in each theory, to accordingly pave the way for the learning paradigm. The study then moves on to suggest a new development communication paradigm which bridges the gap between both current paradigms, one that aims to reach all stakeholders in a long-term manner. The suggested Learning Paradigm focuses on the audiences' internal and external factors that can affect if they successfully acquire information disseminated through development communication campaigns.

The experts agreed with the suggested conceptual model and saw potential in the learning paradigm's support for sustainable and inclusive development. There was a strong consensus that thorough research is mandatory for the effectiveness of the learning paradigm. Unless the communications efforts are completely harmonious with the target audience's culture, characteristics, socioeconomic status, and capabilities, they will be guaranteed to fail. Investing time, effort, and money in researching target audiences enough to put ourselves in their shoes is a step toward successful development communication.

Chapter 1

Introduction

"Leave no one behind" is the 2030 Sustainable Development goal's central promise. This slogan and the goals' title indicate that for development to be effective, it needs to be sustainable and inclusive. Sustainable meaning that it has long-lasting effects which pave the way to even more development in the future, and inclusive meaning that it benefits all the accurately identified stakeholders.

For communication to efficiently advance development efforts, it needs to resonate with the aforementioned core components of development: sustainability and inclusivity. In this thesis, I operationalize Development Communication as the use of different communication techniques to enhance the effectiveness of development efforts. I also define Learners or Target Audiences as the individuals and communities the development communication campaigns are designed to reach.

There are two main development communication paradigms. The top-down dominant paradigm is criticized for not being inclusive, and the bottom-up participatory approach is criticized for not being sustainable. Each of the existing development communication paradigms lacked an integral element of effective development. This risks that either the people in need of development are not reached altogether or that the impact of development to be only momentary.

In light of the weaknesses of the above paradigm, this thesis suggests a new development communication paradigm that is anchored around learning. The "Learning Paradigm" aims to bridge the gap between both current development communication

paradigms and suggest a development communication paradigm that mirrors both main elements of effective development and accordingly successfully achieves long-term behavior change amid all identified stakeholders.

The new suggested paradigm is centered around learning because, at its core, learning aims to instill permanent behavior change amid accurately defined target audiences or stakeholders.

Cambridge Dictionary defines learning as "to get knowledge or a new skill, make yourself remember some [concepts], be told facts or information that you did not know, and start to understand that you must change the way you behave". Key words from this definition that resonate with development's core components are '*understand*, *change*, and *behave'*.

Through its literature review, this thesis aims to shed light on previous development communication theories and elaborate on the missing links in each theory, to pave the way for the learning paradigm accordingly. The literature review also reviews Ambrose et al.'s seven principles of learning and then maps the principles of development communication theories to Ambrose et al.'s seven principles. This exercise shows that each theory resonated with one or more of the seven principles.

Ambrose et al.'s work did not present a structured workflow for the principles, which is what the learning paradigm aims to do. This structure will pave the way for quantitative research that measures each principle. As a first step, this study presents a suggested conceptual model of the learning theory to illustrate the steps learners go through in the development communication process.

The model's applicability is explored through 12 in-depth interviews with four categories of the development communication eco system. Those four categories are public relations experts, advertising experts, NGO on the ground professionals, and campaign owners (or sponsors). Inputs from the four groups of experts provided rich insights into achieving effective development communication using the learning paradigm model. The model earned face validity, construct validity, and discriminant validity through those interviews.

The study then presents and discusses the findings on each principle, after which it provides the recommended way forward. The first future direction mentioned is the need to formulate a measurement model to test the suggested conceptual model and move beyond the stage of exploratory research into the stage of theory formulation.

The thesis begins with an introduction to its objectives, significance, and illustration of what gap its fills. This is followed by a thorough literature review on the development communication theories and Ambrose et al.'s seven principles of learning. The literature review concludes with mapping development communication theories to Ambrose et al.'s seven principles of learning. The conceptual model is then elaborated upon after the literature review. Following the conceptual model there is a detailed description of the methodology. Prior to the methodology there is the findings section that groups findings per principles. The findings are then reflected on in the discussion section. The conclusion section follows with the main highlights of the study, followed by the limitations and way forward sections that give guidance on what needs to be done to would take the study to the next level.

<center>**Chapter 2**</center>

<center>**Literature Review**</center>

<center>**The Evolution of Development Communication Paradigms and Theories**</center>

2.1 Background

Development communication originated as a post-war term meaning "the application of communication strategies and principles in the developing world." (Waisbord, 2020). The term development originally referred to the process Third World Countries need to go through to become as developed as Western societies regarding education levels, economic prosperity, and political systems (Inkeles and Smith,1974). The guiding theme then was that there was one model for development – that of developed countries– that underdeveloped countries had to follow should they want to become developed countries themselves.

In his "Family Tree of Theories, Methodologies, and Strategies in Development Communication" article, Waisbord gives an overview of how, over the years, development communication concepts have evolved. As time went by, various definitions of development communication emerged, each reflecting its political agenda and interests. A more recent definition states that development communication aims to remove constraints for an increasingly participatory and equal society. According to both

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ends of the fore mentioned development communication definition spectrum, there are two somewhat contrasting suggested reasons for underdevelopment:

i)   The lack of information among citizens

ii)   The prevalence of power inequalities

Two paradigms of development communication have evolved in light of both approaches to development and, accordingly, development communication. The two paradigms are the dominant paradigm followed by the participatory paradigm.

2.2 The Dominant Paradigm

The dominant paradigm professes that underdevelopment results from uniformed citizens who need to follow the ways of developed countries to prosper. Hence it focuses on effectively getting the information designed and drafted by the developed world to the underdeveloped world.

The well-known Modernization theory is a strong advocate of the dominant paradigm. Scholars like Schram and Lerner encouraged this theory and saw the development and prevalent social norms as mutually exclusive. It is believed that a cookie-cutter approach to development is the only available route for countries to flourish. Accordingly, communications were seen as the vehicle which would transfer the developmental information from developed countries to underdeveloped countries.

Two models conceptualized communications under the dominant paradigm. The Shannon–Weaver sender-receiver model suggests that the communication process is one way. The World War II propaganda/hypodermic needle model also suggests that communication has a guaranteed strong effect on audiences.

2.2.1 Dominant Paradigm Theories

In the wake of the modernization school of thought, many theories emerged, including:

2.2.1.1 The Diffusion of Innovations Theory, written by Everett Rogers in the 60s, aimed to explain how innovations were spread amongst populations (Nakamori, 2020). It divided the process into five parts: awareness, knowledge and interest, decision, trial, and adoption/rejection. Rogers divided information recipients into innovators, early adopters, early majority, late majority, and laggards.

2.2.1.2 The Two-Step Flow Communications Theory, written by Lazarsfeld in the late 40s, suggests that mass media messages go through opinion leaders first, passing it on to the rest of the population (Sinnig,2020). As opposed to the hypodermic needle theory, which suggests that mass media has a direct and quick effect on recipients, the two-step flow communications theory suggests that interpersonal relations play a major role in information transmission.

2.2.1.3 The Social Marketing Theory: Kotler and Zaltman's 1970s theory focuses on how marketing and advertising techniques and tools can encourage behavior change (Kotler & Zaltman, 1971). The theory suggests using marketing research and segmentation techniques and then converting those findings into culturally acceptable messages and communications products that would encourage behavioral change at the recipient's end.

2.2.1.4 Health Promotion and Health Education: Like the Social Marketing Theory, the Health Promotion and Health Education communication theory was originally

aimed at inducing behavioral change (Sharma,2021). The theory is built on the belief

that health problems are mainly caused by individual behaviors which need to be

tackled through top-down behavioral change efforts. Over time the theory evolved to

be less behaviorist and more inclusive of other social and environmental challenges

affecting the health sector. Ancient Greeks were the first to recognize the importance

of health promotion and health education and work on highlighting them within their

communities (Raingruber, 2017). This interest carried on to the Roman and medieval

eras. Examples of attention given to health promotion and health education in modern

times include the International Union for Health Promotion and Education, founded

in 1951, this entity is dedicated to advancing health promotion globally, and the

Lalonde Report (Lalonde, 1974), written in 1974, was the first official statement

suggesting that health promotion was affected by issues other than those coming from

the health care system.

2.2.1.5 Entertainment-Education: This is a strategy that aims to deliver

developmental messages in a way that is entertaining to the target audiences (Sood,

Menard & Witte, 2004). The approach originally developed in Mexico during the

1970s, where popular soap operas (also known as Telenovas) had developmental

messages embedded in their scripts and storylines. This top-down strategy follows the

Shannon Weaver linear communication model (Kubota, 2019). It builds on Albert

Bandura's Social Cognitive Learning theory's premise that people acquire new

behaviors by watching others do them first.

2.3 Critiques of the Dominant Paradigm

The dominant paradigm has received considerable criticism since its inception in the mid-60s (Snyder, 2003). The paradigm was critiqued for disregarding developing countries' true needs and contexts, causing underdeveloped countries to depend more on developed countries. While the Entertainment-Education and Health Education paradigms realized the importance of education for behavioral change, they continued to follow the dominant paradigm's top-down communications approach.

The New World Information and Communication Order (NWICO) debate at the UNESCO during the 1970s and 1980s was one of the well-known movements to oppose the dominant paradigm (Padovino,2015). Through the NWICO draft proposal, several developed countries demanded that governments control their own media structures to maintain their ideological and cultural autonomy. Although the NWICO resolution was not passed, the dialogue it initiated remains a relevant highlight to dominant paradigm opposition.

Several theories criticized the Dominant Paradigm, including *The Dependency Theory*, first propagated by Paul Baran in 1957 (Ghosh, 2017). This neo-Marxist theory suggests that internal factors within the countries did not cause underdevelopment. According to the theory, underdevelopment was caused by global social, political, and economic structures, which led to the dominance of developed countries over underdeveloped countries

Another neo-Marxist theory written by Herbert Schiller in the 1970s is the Culture Imperialism Theory (Philip & Sengupta, 2021), which resonated with the Dependency

theory's fundamentals with a special focus on culture. According to the theory, developed countries' economic and political dominance led to dominance over the mass communication material of underdeveloped countries. This dominance undermined the cultural autonomy of underdeveloped countries, given that mass media messages affect recipients' culture.

2.4 The Participatory Paradigm

The increasing criticism of the dominant paradigm paved the way for the participatory approach, which Paulo Freire first conceptualized in the 1970s. (Waisbord, 2020). The approach introduced a redefinition of the concept of development communication. Rather than being a pure top-down educational process, participatory theories suggest that it should be a process that aims to utilize mass communication tools and channels to increase citizens' participation in development and motivate, inform, and train populations of rural areas, mainly in grass root levels. Another perception shift to development communication suggested by the participatory theory was the need to rely more on interpersonal communication and less on mass communication.

2.4.1 Participatory Paradigm Theories

Essentially, the participatory approach called for human-centric development communication that harmonizes with audiences' contexts and needs and where the audiences are actively involved. Participatory approaches include Media Advocacy, a concept highlighting the critical role communications can play in advocating for a certain cause or innovation, making it a national or political priority. In development communication, international players can initiate media advocacy but also need to have

buy-in and ownership from local players. Activities under the umbrella of media advocacy include interaction with decision-makers, direct mail, seminars, rallies, regular mass media coverage, and seeking endorsements. This concept resonates with McCombs and Shaw's 1970s Agenda Setting theory which suggested that mass communication has the power to shape the public agenda (Mcombs & Shaw, 1972).

Another participatory approach is *Social Mobilization,* when members of a community become aware of an issue, identify it as a high priority to act upon, and plan how to tackle it (Hart,2013). Social mobilization highlights the importance of wide community participation so that citizens feel ownership of the cause and not feel that it is imposed on them. According to Waisbord (2020, p.119), "social mobilization is the glue that binds advocacy activities to more planned and researched program communication activities." The term was first used by UNICEF (UNICEF 1993; Wallack 1989) to illustrate a comprehensive planning approach based on building political coalitions and spurring community action. Successful mobilization should be based on the mutual benefits of all involved partners and have a decentralized structure.

2.5 Critiques of the Participatory Paradigm

The approach faced many criticisms, including being too idealistic and not operationalizing guidelines and applications, and too risky for citizens of non-democratic countries who could risk retaliation if involved in social mobilization activities (Chaudhry, 2022). The approach is also accused of having the potential of deepening divisions within communities as not necessarily all groups would see eye to eye on certain issues. One final limitation of the participatory approach is not being efficient in contexts that require fast results, such as national mobilizations or health crises.

2.6 The Learning Paradigm

With all the limitations of both the dominant and the participatory paradigms, I suggest the "Learning Paradigm" as an alternative and effective approach for development communication. Development communication intends to inform the public, help them acquire new skills, and eventually instill a permanent behavior change. The Cambridge Dictionary (2022) defines learning as "to get knowledge or a new skill, make yourself remember some writing, be told facts or information that you did not know, and start to understand that you must change the way you behave". Marriam-Webster Dictionary (2022) states that learning is "the modification of a behavioral tendency by experience (such as exposure to conditioning)", which is the ultimate goal of communication for development campaigns.

Ambrose et al. (2010) identified seven learning principles grounded in the research literature and broadly applicable across domains, learners, and contexts. Mayers (in Ambrose et al. 2010, p. xiv) explained that "the principles concern the role of the student's prior knowledge, motivation, and developmental level, as well as opportunities for the student to practice, receive feedback, and learn to become a self-directed learner."

These seven principles will be detailed in the coming pages, but Ambrose proposed the following conclusions after more than three decades of working with educators and learners. 1. Students' prior knowledge can help or hinder learning. 2. How students organize knowledge influences how they learn and apply what they know. 3. Students' motivation determines, directs, and sustains what they do to learn. 4. To develop mastery, students must acquire component skills, practice integrating them, and know when to apply them. 5. Goal-directed practice coupled with targeted feedback

enhances the quality of students' learning. 6. The student's current level of development interacts with the course's social, emotional, and intellectual climate to impact learning. 7. To become self-directed learners, students must learn to monitor and adjust their approaches to learning.

2.6.1 Principle 1: How Does Students'Prior Knowledge Affect Their Learning?

UNICEF defines development communication as "an evidence-based process that utilizes communication tools, channels, and approaches to facilitate participation and engagement with children, families, communities, and networks for positive social and behavior change in both development and humanitarian contexts." (UNICEF, 2018).

In light of this definition and given that development communication aims to create sustainable behavioral change, one of the biggest challenges development communication campaigns face is the existing beliefs and information in impoverished and under-educated target audiences.

Audiences resort to prior knowledge when reviewing and processing development communication material (Ausubel, 1968), particularly primary frameworks, socially or personally accepted beliefs, and ideologies) (Goffman, 1974). Prior knowledge also includes declarative knowledge (facts and concepts that can be declared) or procedural knowledge (how methods, approaches, or theories are applied) (DeJong & Ferguson - Hessler, 1996). Inappropriate or faulty prior knowledge can hinder the effectiveness of development communication or stop it altogether (Ambrose et al., 2010). An example of this is raising awareness against Hepatitis C. in a society where people think there is no

harm in reusing injection needles (faulty information/declarative knowledge). Similarly, raising awareness against domestic violence in a society where it is common and accepted (faulty primary and personal frameworks).

The misapplied cultural knowledge of underdeveloped societies poses the biggest threat to the success of development communication campaigns (Ambrose et al., 2010). Festinger's (1957) theory of cognitive dissonance explains why existing knowledge and beliefs can impede the acceptance of development communication campaigns. The theory, devised in the 50s, suggests that the contradiction of existing beliefs/knowledge with new information causes a mental conflict that is relieved by rejection, attempts to explain, complete avoidance, denial of conflict, or attempts to reconcile the discrepancies.

In practical terms, a man who culturally accepts domestic violence and then sees an anti-domestic violence message is inclined to reject it altogether as it collides with his primary framework. An example of this is South Africa's soaring domestic violence rates despite various awareness-raising initiatives, including the "365 days of activism" campaign (CEDAW, 2021). According to Convention on the Elimination of all Forms of Discrimination Against Women (CEDAW), various societal and historical factors have made domestic violence an accepted norm in South Africa. CEDAW also attributes the soaring rates to other factors, including limited resources, lack of coordination between responsible bodies, and institutional weaknesses.

Other impeding factors to the success of development communication campaigns are audiences not knowing how to apply the information they receive and audiences not understanding the content they are viewing (Ambrose et al., 2010). Another theory that

can shed light on the key role existing knowledge plays in the success of development communication campaigns is the Diffusion of Innovation theory (Rogers, 2003), or rather the criticism of this theory. Devised in the 60s by Rogers, this theory suggests that an innovation (development campaign message) is diffused over time amongst a certain social system or population and eventually adopted by its target audiences. Rogers classifies the target audiences of innovations through the willingness to pick up innovations: innovators, early adopters, early majority, late majority, and laggards.

Despite its popularity, several criticisms have been raised against the theory (Enblers of Change, 2021), and they apply to this learning principle. One challenge is the pro-innovation bias or the assumption that innovation is suitable for everyone. In the case of development communication, existing knowledge can lead audiences to think that the message is not suitable for their context. Another problem is individual blame bias or labeling someone as a "laggard" when they did not understand the innovation as it was not explained to them properly. In the case of development communication, a lack of existing knowledge might entail a simpler or more creative way of relaying the message, which, if not adopted, will result in non-comprehension. Finally, the recall problem is when audiences do not have the introduced message top of mind. In the case of development communication, existing knowledge can lead audiences to perceive the message as unimportant.

Inequality issues arise because lower socioeconomic classes have a much smaller share of information than higher classes. Several factors contribute to this, such as the lack of education (people who did not go to school) and the lack of proper infrastructure to attain new knowledge (people who do not have an internet connection). The issue of

inequality was further elaborated on in Tichenor's (1970) knowledge gap theory, which suggests that lower socioeconomic segments inevitably absorb information at a slower rate than higher segments which widens the gap between both.

Tichenor attributes this to the communication skills of higher socioeconomic segments who have better education and are consequently better equipped to ask for and understand information. Another factor is the stored information through accumulated education of higher socioeconomic segments providing a better knowledge foundation to process and analyze information accurately. Tichenor purports that educated people tend to contact relevant social contact surroundings that are equally educated or even higher educated. This social integration allows for the exchange and development of perspectives and ideas. Educated people have selective exposure, and an awareness of how to best utilize different information sources (for example, the internet) and not limit themselves to certain types of content. Finally, for profit-making purposes, knowledge products or commodities are usually targeted toward higher socioeconomic segments.

Development communicators are becoming increasingly aware of the importance of factoring in audiences' prior knowledge in the design of campaigns. For example, the WHO highlights the necessity of listening to target audiences to gain insights into what/how people think about an issue and accordingly have clarity on how their understanding will lead them to act (WHO, n.d. -a) . The WHO recommendations are in harmony with American psychologist David Ausubel's findings. Ausubel described prior learning as an integral element to successfully acquiring new information. According to Ausubel, "ascertain this and teach him accordingly".

While there has been a general agreement on this principle, other findings suggest that the mere presence of accurate/constructive prior knowledge is not enough for this knowledge to fulfill its potential in enabling the learning process. According to Brod (2021), "Only when activated, relevant, and congruent will prior knowledge reliably help." Brod's findings are an important addition to Ambrose et al.'s, highlighting the importance of activating the useful prior knowledge. These findings will be further elaborated on in the second principle, which focuses on how models of organizing knowledge may play a role in the success of the learning process.

Proposition 1. The target audience's <u>prior knowledge</u> can significantly impact communication effectiveness for development.

2.6.2 Principle 2: How Does the Way Students Organize Knowledge Affect Their Learning?

Higher learning is defined as "an active, interactive process that results in meaningful, long-lasting changes in knowledge, understanding, behavior, dispositions, appreciation, belief, and the like." (Angelo, 1993). The learning in Angelo's definition sums up the impact development communication campaigns aim to achieve.

The way novice learners (which in the case of development campaigns are the message recipients) organize their knowledge (existing and acquired) can greatly affect the comprehension and impact of the information received. Ambrose et al. (2010) classify knowledge organization models as sparse and interconnected. In the sparse model, the

recipient memorizes each piece of information as a standalone fact. This model is usually adopted by novice learners and does not support future learning. In the interconnected model, the recipient processes information in a more interconnected manner with the overall learning context, enabling reasoning that leads to answering questions and laying the foundations for future learning. For example, a student resorting to a sparse knowledge organization model memorizes the exact date of a certain war, while another student resorting to an interconnected knowledge organization model would rely on his understanding of the historical context of the era in question and deduct the war date accordingly.

More often than not, novices resort to learning through sparse knowledge organization models instead of experienced learners who process information in a more integrated manner (Ambrose et al., 2010). Processing information as stand-alone facts is most likely to result in what the United Kingdom's Government Communications Services (GCS) Behavioral Science team refers to as a "capability barrier". This barrier happens when an information recipient cannot implement a behavior because they lack the necessary awareness or skills (GCS,2021).

Expert learners processing information in an integrated manner and achieving sustainable behavioral change is similar to Anderson's Associative Network of Memory theory (Anderson, 1983). This theory suggests that concepts are stored in the memory in the form of nodes. When one node is activated, it leads to the activation of all the similar nodes around it (Lee et al., 2016). The theory also suggests that the closer the two nodes are associated, the stronger the link between them and the stronger the stimulus node's effect.

Figure 1 below clarifies the differences between the knowledge processing models of novice and expert learners.
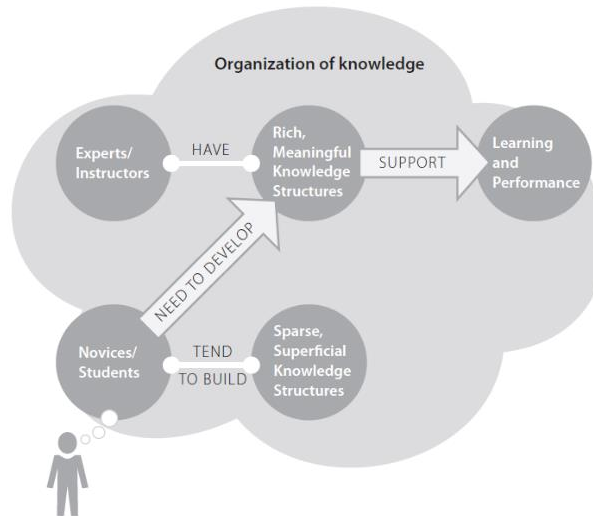
Figure 1. Differences in How Experts and Novices Organize

Knowledge

Source: Ambrose et al., 2010

According to UNICEF (UNICEF, n.d), designing development communication campaigns around people's true needs and contexts is key to promoting social and individual change. Thus, it is important to communicate developmental messages to trigger the interconnected knowledge organization model. This recommendation is in harmony with the Elaboration Likelihood Model (Petty & Cacioppo, 1986), which suggests that there are two routes through which a persuasive message can be conveyed and that the route is to be chosen according to the audience's context. The Central Route comprises direct messages and facts tailored for individuals who understand the topic well and are interested in learning more about it. On the other hand, the Peripheral Route comprises less dense messages and directions tailored for individuals who don't

understand the topic well or are not interested in learning more about it. This model highlights audiences' different information processing modes when coming across communications campaigns and suggests a suitable message route (Shahab & Ghazali, 2021).

Clear and specific instructions can encourage the development of interconnected knowledge management. It also efficiently deploys development campaign messages directed toward audiences coming across the information for the first time. In its COVID-19 Risk Communication and Community Engagement (RCCE) plan, the WHO suggests that development communication material should contain: i) recommendations for actions to be taken, ii) recommendations for behaviors to be adopted, and iii) recommendations for information recipients to share with family and friends. (WHO, n.d. -b). This interrelated message stimulates interconnected knowledge acquisition and processing.

Egypt's awareness-raising campaign against Hepatitis C. is an example of how tailoring development communication campaigns according to the knowledge organization model of audiences contributes to increasing the campaign's impact. The campaign supported by the WHO identified shortcomings in the understanding and knowledge of target audiences and tailored the messages accordingly. Under the slogan "It's either virus C or us!" all materials showed all sectors of society working hand in hand against the virus. There was a series of ads under the campaign's main umbrella, each dedicated to a key message: i) call for action to get tested, ii) what to do in case of infection, iii) how to avoid infection, and iv) to prevent stigmatization of the infected. (WHO, n.d.-c). The campaign that handheld novice learners away from the sparse

knowledge organization model into an integrative processing mode along with the political will, which resulted in the facilitation of treatments, led to Egypt being the first country to eliminate Hepatitis C. (Hassanein et al., 2021).

How information recipients organize their knowledge is at the heart of cognitivism, a discipline that gained traction around the mid-20th century by scholars including Noam Chomsky and George Miller (Saunders & Wong, 2020). Cognitivists describe learning as "acquiring knowledge and skills and having them readily available from memory so you can make sense of future problems and opportunities" (Brown et al., 2014).

Cognitive psychology suggests that learners acquire and store knowledge in their long-term memory. They also organize their information into categories and create connections to facilitate the retrieval of relevant facts when needed (Clark, 2018). To foster long-term learning, cognitivists encourage several practices. Recommended practices include retrieval practice (requiring knowledge recipients to recall information from memory) and problem-based learning, defined as "trying to solve a problem before being taught the solution leads to better learning, even when errors are made." (Brown et al., 2014, p.4).

As Saunders & Wong (Saunders & Wong, 2020, p 42) mentioned, in light of the cognitivists' take on the ideal environment for effective learning, Gagne proposed the below nine conditions for learning (Gagne, 1985).

1. **"Gain attention.** Engage students' attention by tying learning to relevant events in their lives and asking stimulating questions.

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2. **Inform the learner of the objective.** Begin by sharing the learning goals with the students, thus setting expectations and providing a map of the learning.

3. **Stimulate recall of prior learning.** Encourage students to remember previously learned relevant skills and knowledge before introducing new information.

4. **Present the stimulus.** Share new information. This step depends on the content of the lesson. For instance, a lesson on Boolean operators might begin with a Venn diagram and examples of the uses of *and*, *or*, and *not*.

5. **Provide learner guidance.** Facilitate learning by demonstration and explanation.

6. **Elicit performance.** Allow time for students to practice skills and demonstrate their abilities. Ideally, students would be given low-stakes opportunities for practice, so they feel comfortable if they do not succeed immediately.

7. **Provide feedback.** Offer students input on what they are doing well and where they can improve.

8. **Assess performance.** Employ measures such as assignments, activities, and projects to gauge whether learning has occurred.

9. **Enhance retention and transfer.** Give students opportunities to practice skills in new contexts, which improves retention and helps students see how the skills are applied to different areas."

In criticisms of cognitivism, Saunders & Wong elaborate that some scholars suggest that the discipline does not factor in the impact emotions have on learning. Other discipline critics suggest that it overestimates the importance of memorizing and recalling facts at the cost of creativity and problem-solving. In reply to this criticism, cognitivists

suggest that recalling facts is essential for higher-order skills; hence, they are interdependent, not mutually exclusive (Brown et al., 2014).

The researcher, therefore, proposes the following:

Proposition 2. The target audience's <u>knowledge organization models</u> (KOM) can significantly impact the effectiveness of communications for development.

Proposition 2 a. Sparse KOM negatively impacts the effectiveness of communications for development

Proposition 2b. Interconnected KOM positively impacts the effectiveness of communications for development.

2.6.3 Principle 3: What Factors Motivate Students to Learn?

The American Psychological Association defines motivation as "the impetus that gives purpose or direction to behavior and operates in humans at a conscious or unconscious level. Motives are frequently divided into (a) physiological, primary, or organic motives, such as hunger, thirst, and need for sleep; and (b) personal, social, or secondary motives, such as affiliation, competition, and individual interests and goals. An important distinction must also be drawn between internal motivating forces and external factors, such as rewards or punishments, that can encourage or discourage certain behaviors." (APA, n.d.-a)

Ambrose et al. (2010)   suggest that motivation influences the quality, intensity, persistence, and direction of learning behaviors and affects acquiring new information

accordingly. This makes understanding the motivation of information recipients to acquire new information or adopt new attitudes key to the success of development communication campaigns. If a goal is perceived to be valuable, its success expectancies are positive, and the environment is perceived to be supportive, then motivation will be highest.

To help understand learning motives, Ambrose et al. (2010) present a brief typology of goals based on what the recipient truly seeks to achieve, which are not necessarily mutually exclusive.

2.6.3.1 Performance goals: driven by projecting the desired self-image and a positive external image. In development communication, this can be done by portraying a desired positive and powerful model image or showing its contrast, which is the byproduct of the behavior intended to be changed.

2.6.3.2 Learning goals: driven by the sincere want to learn the presented information. In development communication, this is done by deeply raising the learner's desire to understand the issue.

2.6.3.3 Work avoidant goals: driven by the desire to finish the learning process at the soonest time while exerting the least effort. In development communication work avoidant goals are resolved by presenting simple sugar-coated messages broken into small bites and communicated through celebrities, jingles, and other attractive elements.

2.6.3.4. Affective and social goals: driven by the desire to interact with other people. In development communication, this is done by highlighting how the behavior change will help the target audiences and their surroundings.

The book goes on to elaborate on those two concepts that are important to understanding motivation:

- The goal's subjective value: people tend to engage in behaviors that lead to attaining goals with high value to them. Wigfield and Eccle's subjective value typology is divided into three broad and often interconnected categories (Wigfield & Eccle, 1992, 2000) :

  - Attainment value is satisfaction resulting from a goal's successful accomplishment. This value is realized when the target audience starts to feel the impact of their behavior change, such as with anti-smoking campaigns.

  - Intrinsic value is satisfaction resulting from performing the introduced goal rather than achieving the goal itself. An example of this is the 57375 Egypt cancer hospital which encourages people to visit and interact with the children. Consequentially some people enjoy the visit to the extent that they make it a habit.

  - Instrumental value: satisfaction resulting from the goal helps accomplish other important goals. In development communication this can be achieved through boot camps and intensive workshops away from the daily.

- The goal's achievement expectations: people are more encouraged to embark on goals they believe they can achieve. Ambrose et al.'s goal achievement expectations typology is divided into:

- Positive outcome expectancies are where a person believes that adopting a certain behavior will lead to achieving a goal. In developmental communication, a lack of positive outcome expectancies is usually the main hurdle to receiving the message.

- Negative outcome expectancies are where a person believes that adopting a certain behavior will not lead to achieving a goal.

- Efficacy outcome expectancies: when a person believes that they can achieve a certain goal.

Figure 2 below illustrates the role value and expectancy play in the learning process.
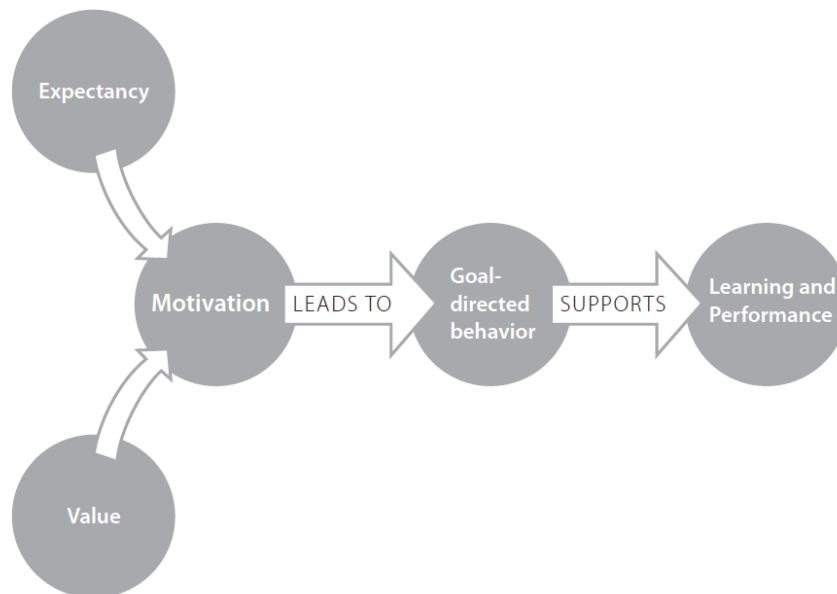
Figure 2. Impact of Value and Expectancy on Learning and

Performance

Source: Ambrose et al., 2010

Lloyd and Merten (2018) highlighted that pre-requisites to motivation have also been tackled by Victor Vroom's 1964 "Expectancy Theory of Motivation," which suggests that individuals actively make choices and that decisions are based on what choice will result in the best personal outcome. To sum up his take on motivation, Vroom suggested the following formula:

$$\text{Motivation} = \text{Expectancy} * \text{Instrumentality} * \text{Valence}$$

In addition to a goal's value and success expectancies, Ambrose et al.'s book also adds the learning environment to the motivation equation. As a positive and encouraging learning environment leads to more efficient knowledge acquisition.

Figure 3 below illustrates the interactive effects of Environment, Efficacy, and Value on motivation.
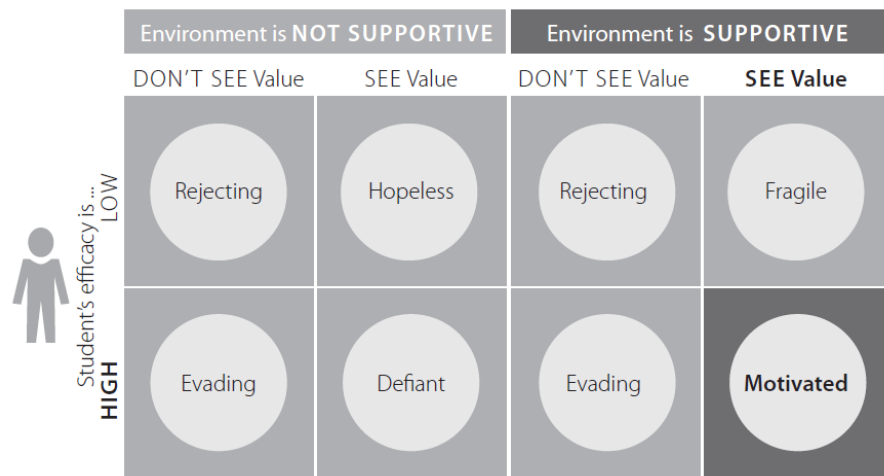
Figure 3. Interactive Effects of Environment, Efficacy, and Value on

Motivation

Source: Ambrose et al., 2010

Ambrose et al.'s take on motivation is in harmony with Albert Bandura's Social Cognitive Learning theory.

The theory follows an agentic perspective, meaning that it views information recipients as active rather than passive. It suggests that human behavior results from an interplay between personal, behavioral, and environmental determinants (Bandura, 2018).

Bandura suggests that individuals learn through observing others within their social context (observational learning, vicarious learning) (McLeod, 2016). The theory also suggests that observed behaviors are not automatically imitated. They are thought of and contemplated before being accepted or rejected (the mediational process). Observed and imitated individuals are called models. They can be celebrities, family members, friends, or anyone within the individual's surroundings.

According to McLeod, the mediational process is divided into four components.

Attention: Attention is the degree to which the learner takes note of the behavior. Giving the behavior attention is a prerequisite to learning it. The individual being observed carrying out the behavior is the model. In development communication, we research close or aspirational models for the recipients.

Retention: The extent to which the learner remembers the behavior which caught their attention. Forming a memory of the behavior is a prerequisite to adopting it later. This is especially important in social learning, where knowledge acquisition is not immediate. Retention strategies in development communication include using celebrities, jingles, repetition, high entertainment (awe factor), and shock.

Reproduction: Reproduction refers to the learner's ability to perform the behavior they noticed and remembered. The learner's physical ability limits reproduction, and accordingly, reproduction is sometimes not possible. This limitation influences the learner's decision on whether or not they will try to imitate the behavior. An example of this is a lady who is 90 years old and struggles to walk. When this lady watches dancing on ice, she admires the skills she sees but would never attempt to try them as she knows she is physically incapable of doing so.

Motivation: The learner's drive to perform the behavior they noticed, remembered, and are capable of imitating. The learner will consider the punishments and rewards which result from following the behavior. If the rewards are worth it to the learner and are more than the costs, it is highly likely that the learner will imitate the behavior. Alternatively, avoiding punishment if the behavior is practiced can also become a powerful source of motivation. If the learner does not see vicarious reinforcement as important, they are highly unlikely to imitate the observed behavior.

2.6.3.4 An Application to Development Communication

Modeling and innovative motivation showed success in Sub-Saharan HIV awareness-raising efforts. HIV infected an estimated 1.2 million people in the Sub-Saharan population in 2016. Over a third of those cases were cases whose ages ranged between 15 and 24 (JPAL, 2014). The majority of cases discovered were caused by unprotected sex and multiple sexual partners, which meant that to contain and eliminate sexually transmitted diseases in the region, behavior change was in order. Public service announcements, peer education, counseling, and other traditional knowledge-sharing information showed minimal impact on behavioral change. A more innovative approach

was needed. Accordingly, the MTV Shuga series was launched in Kenya in 2009, followed by Nigeria in 2013 and South Africa in 2017.

Season 3 focused on HIV/AIDS discrimination and stigma, HIV transmission myths, promoting disease testing, and eliminating dangerous sexual behavior. The series disseminated its target messages through the life experiences of the soap opera's characters, who resembled the audience's age, cultural contexts, and habits (World Bank,2017).

A study comprising 240 community screenings of MTV Shuga and a placebo program was conducted in southwest Nigeria. Those screenings were coupled with 5,000 participant interviews before, right after, and six months later. The interviews conducted with participants six months after viewing the series showed that the likelihood of them getting tested for HIV increased by 50%. Reports of Chlamydia (another regionally prevalent sexually transmitted disease) decreased by 58% for women patients, and the likelihood of having multiple sexual partners decreased by 14%.

According to the Boston University School of Public health, there are limitations to the theory that need to be considered before being used in public health (Boston University School of Public Health, 2019). Those include the assumption that changes in the environment will, by default, lead to changes in the person is not always true. The theory's loose organization was based only on the dynamic interaction of person, behavior, and environment. Clarity is needed regarding how much each factor influences behavior and if there is a factor that has more power. Moreover, the theory disregards biological and hormonal characteristics that may influence behaviors, and its broad-reaching nature can make it difficult to operationalize in its entirety.

The researcher purports the following proposition.

Proposition 3. Motivation influences the quality, intensity, persistence, and direction of learning behaviors and affects acquiring new information accordingly.

2.6.4 Principle 4: How Do Students Develop Mastery?

Mastery in learning is defined as acquiring a high degree of competence in discrete skills (performing a particular task), content knowledge (knowing specific information), and vast skills and knowledge within a complex task/area. Reaching mastery within a certain domain entails the acquisition of key component skills and the ability to apply them with a degree of automaticity (Ambrose et al., 2010). Figure 4 below illustrates the components of mastery.
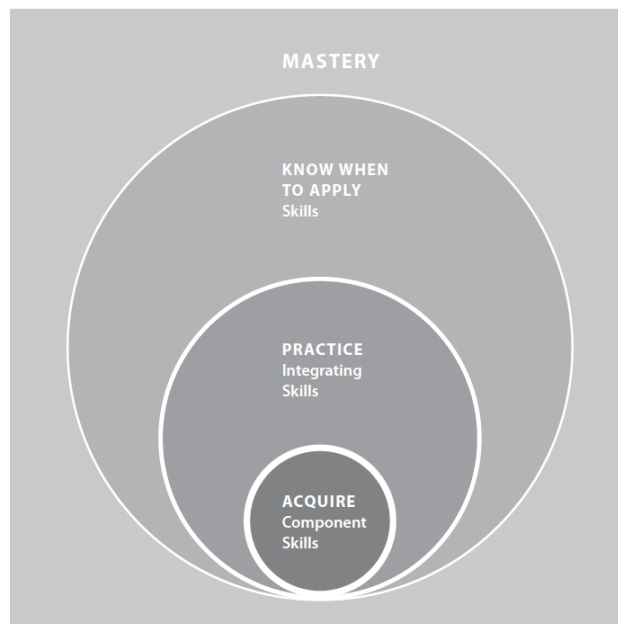
Figure 4. Elements of Mastery

Source: Ambrose et al., 2010

The automatic application of skills being an indication of mastery was first described in Broadwell's "Four Levels of Teaching" model (Broadwell, 1969). While Broadwell was applying the model to the skill enhancement of teachers, later on, experts in the field of learning generalized it to novice learners of all fields and referred to it as the "Four Levels of Learning" (Gordon Training International, n.d). Broadwell's model suggests four levels of competence within the skills acquisition process: i) unconscious incompetence: an individual does not know that they are lacking a skill; ii) Conscious incompetence: an individual knows they are lacking a certain skill and are actively trying to gain it iii) Conscious competence: an individual has the skills required to accomplish a certain task, and consciously apply those skills and iv) Unconscious competence: an individual has the skills required to accomplish a certain task, and they apply them unconsciously (i.e., in an automated manner).

Sultanova et al. (2021) summed up the learning matrix as follows:

- Unconscious competence: I don't know what I don't know.

- Conscious incompetence: I know what I don't know.

- Conscious competence: I know what I know.

- Unconscious competence: I don't know what I know.

Figure 5 illustrates the levels of competence on the mastery continuum.
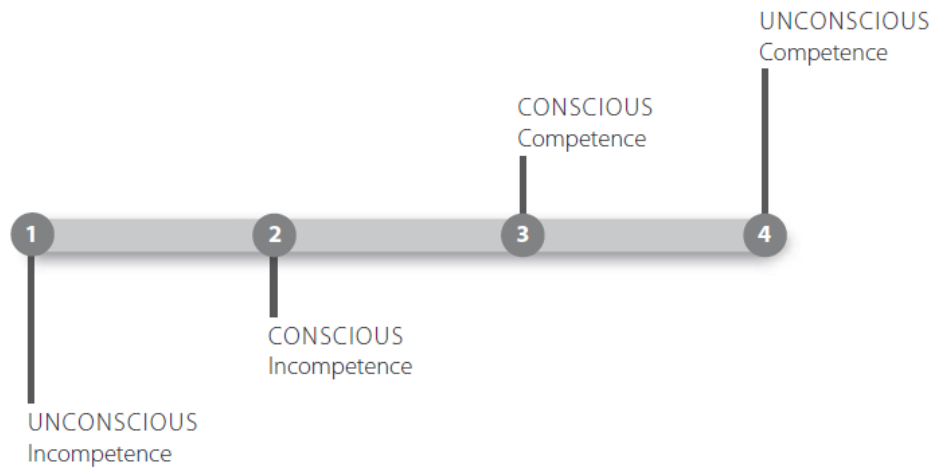
Figure 5 stages in the Development of Mastery

Source: Ambrose et al., 2010

Lane and Roberts (2014) further elaborate on the learning matrix, suggesting that for a person to move up the matrix, they need to have intellectual humility, which is the learning context is "as a mean between extremes of intellectual arrogance, and overconfidence in one's own opinions and intellectual powers, and undue timidity in one's intellectual life." (John Templeton Foundation, n.d.). Ambrose et al. suggest that reaching the automatic application of skills stage or the unconscious competence stage requires learners to first: 1) acquire key component skills, 2) practice effectively integrating them, and 3) know when to apply them.

According to Sweller's 1998 Cognitive Load Theory, cognitive load refers to the mental efforts needed to apply a learning task. The theory divides human memory into working and long term. Information is stored in the latter as schemas, and to process new information, the mental effort will be exerted, resulting in cognitive load on working

memory (Kirschner et al., 2018). Ambrose et al. suggest that successfully guiding learners to unconscious competence with a manageable cognitive load requires experts to:

1- Recognize and get rid of their expert blind spot. In simple terms, conveying the learning message from their level of knowledge and expertise and discarding their audience's learning needs fails to accomplish the learning objective (Nickerson, 1999; Hinds, 1999; Nathan & Koedinger, 2000; Nathan & Petrosino, 2003).

2- Use approaches to facilitate the accomplishment of the learning goal, including:

- De-assembling complex tasks and reinforcing weak component skills through targeted practice.

- Assessing the context and deciding whether reinforcing skills through practicing skills separately or in tandem.

- Giving minor prompts, analogical reasoning, visual representations, and sharing compares and contrasts aid knowledge transfer (the ability to apply skills learned in one context to a new context) (Ambrose et al., 2010).

Sweller's Cognitive Load theory is popular in the realm of learning. One of its weaknesses is the construct of Cognitive Load not being an objective and constant factor that can be easily measured due to its relative and prone measurements to a variety of individual, time-sensitive and empirical factors(Martin,2017).

Pokrajac et al. (2020) suggest that resorting to a methodology of mastery learning based on deliberate practice leads to effective knowledge transfer. The study focused on how

healthcare workers can best learn to accurately use personal protective equipment, a crucial topic especially given the COVID-19 pandemic outbreak. Pokrajac et al. suggested that Simulation-Based Mastery Learning (SBML) is very effective in mastering procedural skills (Pokrajac et al. p.1091). According to their research:

> "SBML is an educational technique that must include the following: 1) baseline testing of a target skill; 2) discrete learning objectives organized by rising difficulty; 3) attentive learner engagement during the activity; 4) a defined minimum passing standard (MPS); 5) testing during the educational process to direct learning and evaluate achievement of the MPS; 6) advancement after reaching the MPS; and 7) continued practice until the MPS is achieved. This method often is paired with deliberate practice, which requires highly motivated students to engage in focused, repetitive practice toward a specified goal with informative feedback to correct errors. The goal of SBML is to have all participants achieve an expert level of skill with minimal to no variation, which is crucial in patient care environments. Moreover, the implementation of the SBML curriculum may improve translational outcomes."

The study – conducted in a United States hospital – comprised 117 subjects, a mix of faculty members and resident physicians. In the study's pre-test of how accurate subjects used personal protective equipment, the mean minimum passing score was 73%. The subjects were then presented with protective equipment, given exact and detailed instructions on how to use them and why it is important to use them and were closely guided multiple times on using the equipment accurately. The post-test passing score

mean was 100%, suggesting the effectiveness of skills reinforcement in acquiring skills mastery.

UNICEF's 2019 Communication for Development Annual report also suggests that clear instructions and close follow-up lead to the mastery of knowledge and accordingly change behavior. The report indicates that in Eastern and Southern Africa, the peer-to-peer behavior change approach (based on the assumption that social surroundings support individual decision-making) has successfully supported pregnant adolescents infected with HIV, including mentoring young mothers to increase testing and adhere to treatment (UNICEF, 2020).

The UNICEF's Young Mentor Mothers (YMM) program was launched in 2019 to support young mothers living with HIV. The program aimed to spur treatment adherence and testing rates. A year later, the program trained 48 young mothers as mentors and linked the trainees to 26 centers that serve the country's program dedicated to preventing mother-to-child transmission. The trained mentors visited target beneficiaries at home, sent reminders through SMS, and performed advocacy activities in the facility- and community-based groups. 80% of the program's beneficiaries received HIV viral load test results, 93% of which had undetectable viral loads, which meant they became healthy and non-contagious.

Proposition 4. Developing <u>*mastery*</u> *requires learners to first: 1) acquire key component skills, 2) practice effectively integrating them, and 3) know when to apply them.*

2.6.5 Principle 5: What Kinds of Practice and Feedback Enhance Learning?

The American Psychological Association defines the practice as the "repetition of an act, behavior, or series of activities, often to improve performance or acquire a skill." The association also defined feedback as information about a process or interaction provided to the governing system or agent. It is used to make "adjustments that eliminate problems or otherwise optimize functioning. It may be stabilizing negative feedback or amplifying positive feedback." (APA, n.d.-b).

Ambrose et al. suggest that practice and feedback are integral to knowledge transfer. However, for those two concepts to fulfill their potential, the practice needs to be *deliberate* and *goal-oriented,* and the feedback needs to be *targeted* (Ambrose et al., 2010). Based on Ambrose et al.'s take on goal-oriented practice and targeted feedback, below is an elaboration on each concept:

2.6.5.1 Goal-Oriented/Deliberate Practice

In the Deliberate Practice Theory, Goal Oriented -Deliberate Practice is acquiring targeted skills through repetition of actions under the supervision of a mentor who provides frequent feedback (Ericsson et al. in Psychol Rev 100:363–406, 1993).

For deliberate practice to fulfill its potential in the knowledge transfer process, Ambrose et al. suggest that it is important to first focus on a clear and specific performance goal. Second, target an appropriate level of challenge in relevance to the learner's current performance. Challenges that are too tough will result in frustration and incompletion of the learning process, while too easy challenges will not help in elevating

the learning curve. Finally, ensure the quantity and frequency of practice are sufficient enough to allow skills and knowledge development.

In their critique of the Deliberate Practice theory, Hambrick et al. (2020) suggest that it is under-specified and lacks the operational definitions necessary to apply the theory and measure its outcome. Example: The theory suggests that "full concentration" is a pre-requisite for deliberate practice, a psychological state that is almost impossible to achieve. What exactly is "full concentration," and what if the person is aware of the room temperature? For example, does this mean they are not fully concentrating on their practice? The theory also needs to integrate a nature vs. nurture approach to knowledge acquisition. Meaning that it also needs to factor in the role individual factors such as genetics and abilities play in gaining expertise.

2.6.5.2 Targeted Feedback:

French et al. (2015) suggest that feedback is an integral factor in successful learning and that it should not aim to evaluate the learner merely but rather to clarify where they stand from their learning objective. They define impactful feedback as specific, timely, and centered around the recipient's learning goal.

Barnett's "Ask- Tell- Ask" feedback model is a popular targeted recipient-centric approach for behavior change and knowledge acquisition (Barnett, 2002). This feedback model is useful in cases where the feedback provider aims to strike a rapport with the recipient. It comprises the following steps:

1- ASK: Ask the learner to assess their performance.

2- TELL: Provide feedback focused on performance, areas of mastery, and areas in need of improvement.

3- ASK: Confirm learner's understanding and co-devise an improvement plan.

The process of feedback is in harmony with the concept of Conceptual Change, which is defined as the process through which learners' existing (mis)conceptions develop into intended normative conceptions (Duit & Treagust, 2003; Vosniadou & Skopeliti, 2014). Accordingly, Conceptual Change models have been developed to understand learners' conception development (Qian & Lehman, 2019).

There are two perspectives pertaining to conceptual change models:

 i) The revolutionary conceptual change perspective suggests that the existing naïve knowledge of novice learners is stored in a theory-like manner and that those theories are used to interpret and construct new concepts (Özdemir & Clark, 2007; Posner, Strike, Hewson, & Gertzog, 1982). According to this perspective, meaningful and effective instruction has to be presented to highlight to recipients their misconceptions and guide them towards adopting the new sought-after conceptions (Abimbola, 1988; Posner et al., 1982).

ii) The evolutionary conceptual change perspective suggests that the existing naïve knowledge of novice learners comprises somewhat unstructured independent elements (Abimbola, 1988; diSessa, 1993). Accordingly, this naïve knowledge makes conceptual change an evolutionary process that corrects and enhances existing knowledge while also refining and establishing ties between conceptions.

Figure 6 illustrates the deliberate practice and goal-oriented feedback cycle.
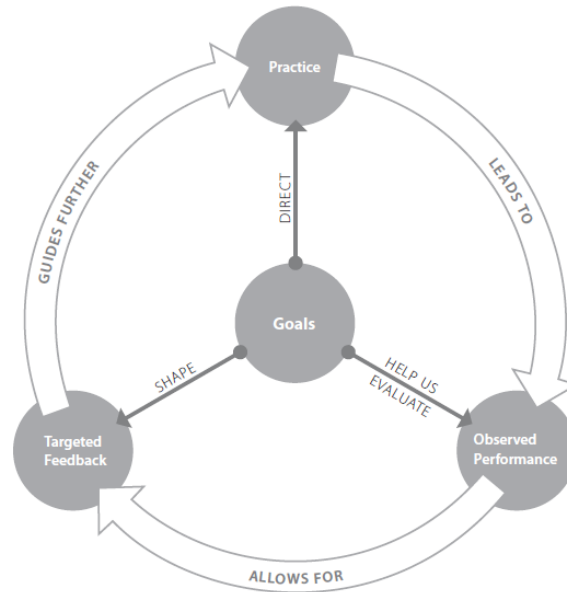
Figure 6. Cycle of Practice and Feedback

Source: Ambrose et al., 2010

Although there is a running debate between both perspectives, conceptual change researchers now tend to agree that i) pre instructional conceptions are based on daily experiences, ii) existing knowledge impacts the acquisition of new knowledge, and ii) misconceptions are engrained, and the process of changing concepts requires a sufficient amount of time (Özdemir & Clark, 2007; Taber, 2013). Hence, targeted feedback that handholds the information recipients towards their learning goals is integral to effective knowledge transfer/skills acquisition.

In the realm of communications for development, community health workers exemplify how targeted feedback can be a catalyst for conceptual change. According to the WHO (2021):

"Community health workers (CHWs) are health care providers who live in the community they serve and receive lower levels of formal education and training than professional health care workers such as nurses and doctors. This human resource group has enormous potential to extend health care services to vulnerable populations, such as communities living in remote areas and historically marginalized people, to meet unmet health needs in a culturally appropriate manner, improve access to services, address inequities in health status and improve health system performance and efficiency."

The WHO lists six ways CHWs fulfill their role, most of which comprise some degree of targeted feedback. First is delivering diagnostic, treatment, or clinical care; second is encouraging uptake of health services; third is providing health education and behavior change motivation. The fourth is data collection and record-keeping; the fifth is improving relationships between health system functionaries and community members, and the last is providing psychosocial support.

In supportive contexts, CHWs can successfully handle even complex health counseling and healthcare treatment tasks such as providing human immunodeficiency virus (HIV) counseling comparable to or better than higher-level healthcare workers, delivering injectable contraceptives or injectable contraceptives, or conducting rapid malaria diagnostic tests. Essentially community health workers are used in cases where citizens of underdeveloped conservative communities need to be handheld towards behavioral change and communicate the new information to their needs to be done in a way that is in harmony with their social context.

Proposition 5. Deliberate practice and goal-oriented feedback are integral to the process of knowledge transfer.

2.6.6 Principle 6: Why Do Student Development and Course Climate Matter for Student Learning?

The Theory of Student Development aims to provide clarity on the process of student learning, growth, and development in education (Cox & Strange, 2010). It has been defined as a "collection of theories related to college students that explain how they grow and develop holistically, with increased complexity, while enrolled in [a] [college] educational environment" (Patton et al., 2016, p.6). Course Climate/Classroom Climate and any other synonyms for learning climates refer to "the social, emotional, and physical conditions under which one acquires knowledge." (Seif et al., 2012).

An efficient learning process must factor in that knowledge recipients are not only intellectual beings, but they are also emotional and social beings. Therefore, it is important to acknowledge and be aware of the complex set of social, emotional, and intellectual challenges knowledge recipients face. Also, we need to acknowledge where they are on the development spectrum and whether the interaction of their course climate and position on the development spectrum will result in a successful and meaningful learning process (Ambrose et al., 2010).

Figure 7 clarifies how the interaction between student development and course climate can affect the learning process.
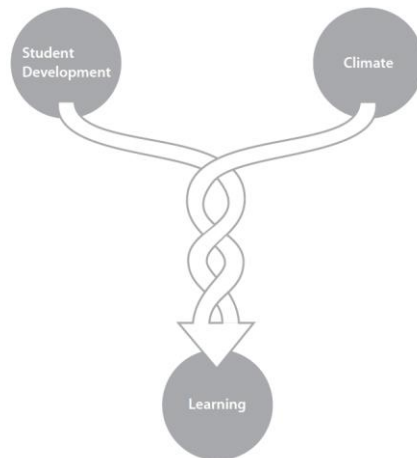
Figure 7. Interactive Effect of Student Development and Course

Climate on Learning

Source: Ambrose et al., 2010

2.6.6.1 Student Development

Various Student Development theories provide a spectrum through which a student's development stage can be determined, one of which is the Chickering model, which suggests the following seven vectors of development, the first being the less developed and the seventh being the most developed (Rahman, 2019).

Developing competence: The process of acquiring skills (including Interpersonal, intellectual and manual skills).

Managing emotions: Becoming aware of different emotions and able to manage them.

Developing autonomy: Individuals operating on their own and taking responsibility for themselves.

Establishing identity: Developing a sense of self.

Freeing interpersonal relations: Being able to be intimate with others and at the same time accept and celebrate their differences.

Developing purpose: Determining interests/goals and working to accomplish them.

Developing integrity: The ability to practice values that are in harmony with one's beliefs.

Abes et al. (2019) map out three waves of Student Development theories, clarifying that they need not be chronologically sequential and that more than one wave can at times apply to certain contexts. The first wave assumes that development is a universal and linear process for all students, organized into separate theoretical domains (i.e., moral, cognitive, psychosocial), and characterizes development as the movement of individuals towards processing issues within their areas of concern.

The second wave explicitly focuses on social identities, namely those of marginalized groups. It considers individual social identities a discrete unit of analysis and is less inclined to be siloed based on domain focus. It questions the first wave's generalizing development approach and emphasizes socially constructed identities, inclusion, and integration of socio-cultural aspects to understand student development.

The third wave views student development from the lens of critical theorists through emphasizing social transformation, drawing attention to large-scale inequalities, and necessitating the integration of theory and practice to promote social change efficiently.

In addition to Abes et al.'s three waves of student development theories, Burress (2018) suggested a fourth wave that focuses on highlighting the importance of social justice and equity, modeling what socially just and equitable spaces look like, and

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providing students with opportunities to construct their tools for seeking social justice and equity.

Research done by the University of Florida (University of Florida, n.d.) provides a simple typology of types of Student Development Theories. The psychosocial theories deal with students' social and self-development, including how they identify themselves, their relationships with others, and their life goals. The cognitive-structural theories highlight development in how people recognize and decide and study intellectual and moral development. The typology investigates personal disparities in how individuals perceive and associate with the world. Typologies like Myers-Briggs and Holland are not progressive but intended to examine idiosyncratic variances.

The University of Florida research suggests that while the student development theory enables us to understand, support, and serve students, it should be referred to with caution. The call for caution is attributed to the fact that this theory is a guide that may not be valid for all situations and, if misused, can lead to the manipulation of students.

2.6.6.2 Course Climate

The significant role course climate plays in achieving a successful learning process can be seen through Albert Bandura's Social Cognitive theory. The theory was proposed in 1986 and suggested that learning occurs in a social context. There is a reciprocal and dynamic interaction of environment, behavior, and personal factors (Boston University, 2019). In his theory, Bandura adopts an agentic perspective on learning, which means that he views individuals as having an active role in their learning process rather than passive recipients.

Bandura identifies four core features of human agency. First is intentionality, which is the ability to engage in specific actions to achieve specific results. Second is forethought, expecting the consequence of events and accordingly embracing or aborting those actions. Third, self-reactiveness and formulating a sequence of events and encouraging oneself to accomplish the desired goal, viewing the goals and actions from the one's moral lens, and deciding to advance or abort. Fourth is self-reflectiveness on the sufficiency of one's thoughts and actions towards achieving the desired goal.

In the self-reflectiveness feature, we see Bandura's validation of the integral role course climate plays in the achievement of an effective learning process. Under this concept, there is the Self Efficacy construct, which is whether individuals perceive themselves as able to achieve a goal. According to Bandura (2001, p.10) :

> "Among the mechanisms of personal agency, none is more central or pervasive than people's beliefs in their capability to exercise control over their own functioning and environmental events. Efficacy beliefs are the foundation of human agency. Unless people believe they can produce desired results and forestall detrimental ones by their actions, they have little incentive to act or to persevere in the face of difficulties. Whatever other factors may operate as guides and motivators, they are rooted in the core belief that one has the power to produce effects by one's actions."

The great importance Bandura attaches to the role of efficacy in learning coupled with Ambrose et al.'s research on the directly proportional relationship between a positive course climate, and student self-efficacy are clear indicators of how course climate is integral to learning.

UNICEF Thailand's "Every Child Can Read" campaign integrated the concepts of applying one of Chickering's seven vectors of Student development and promoting a positive learning climate to promote reading skills amongst children, with a focus on disadvantaged areas. The nationwide campaign was launched in 2019 and introduced initiatives in schools, communities, and homes to promote reading and increase public and family participation in children's reading activities (UNICEF, 2019).

Initiatives under this project aimed to support creating a favorable learning environment that encourages children to enhance their reading skills and schools to develop fun reading activities that engage young readers and embed a love of reading in children. It also included training teachers to efficiently develop young children's early literacy skills and deploying mobile library vans to underserved communities carrying trained animators and children's books to support the project's endeavors.

A social media campaign was launched to encourage engagement in the children reading skills enhancement efforts. Encouraging communities and families to support the project and encouraging children to read resonated with two of Chickering's development vectors: developing a purpose for the communities and children and developing competence. A few months into implementation, the project benefitted 10,000 children nationwide (UNICEF, 2020).

Proposition 6. <u>Learner development and learning climate</u> are integral to effective and sustainable learning.

2.6.7 Principle 7: How Do Students Become Self–Directed Learners?

Self-directed learning is when information recipients carry out their own learning through paying attention to and directing their learning process. It's proven to benefit, including empowering learners to take increased responsibility for their learning task decisions (Kapur, 2019).

Metacognition is a term coined by James Flavell in the '70s. Flavell originally defined this term as "knowledge and cognition about cognitive phenomena" (Flavell, 1979, p. 906). The updated brief definition of Metacognition is "thinking about thinking" (Moritz & Lysaker, 2018). Ambrose et al. (2010) suggest that for information recipients to become self-directed learners, they need to enhance their metacognitive skills. They need to be able to monitor and control their learning process or think about their thinking, as mentioned by Moritz & Lysaker until they accomplish their learning goal. While there are various metacognition cycles, monitoring and controlling the learning process are the two common factors in most models. Ambrose et al. suggested the below brief metacognition conceptual model:

- Step 1: Learners assess the assigned task, including constraints and goals.
- Step 2: Learners assess their skills and knowledge and accordingly identify their weaknesses and strengths.
- Step 3: Based on steps 1 and 2, learners map out how they will approach the task.
- Step 4: Learners apply their execution plan while monitoring their progress.
- Step 5: Learners assess the effectiveness of their approach and fine-tune, and restart the cycle as the situation entails.

Figure 8 below illustrates the self-directed learning cycle.
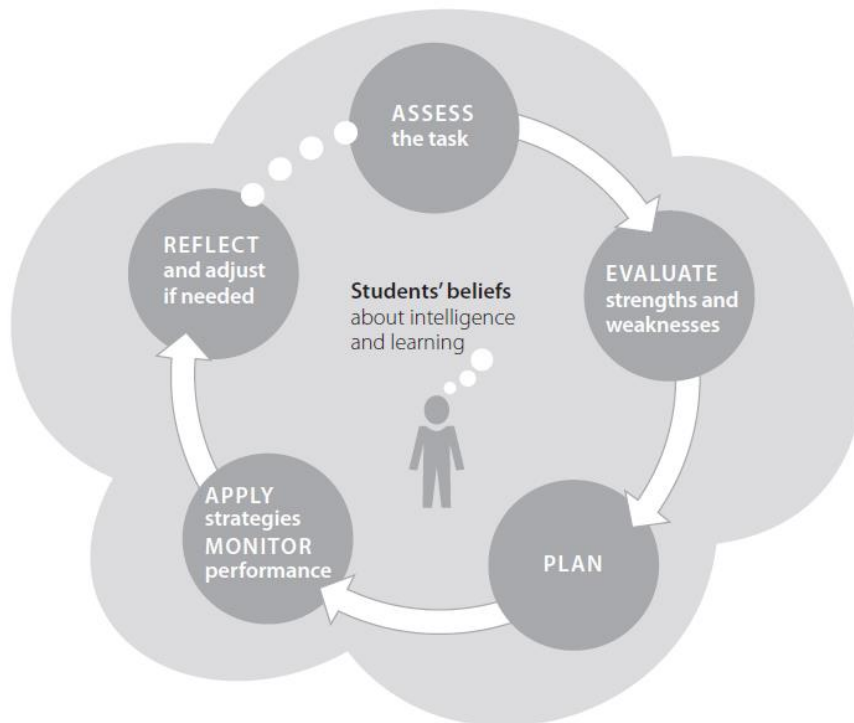
Figure 8. The cycle of Self - Directed Learning

Source: Ambrose et al., 2010

Ambrose et al. highlighted that how the learners perceive their abilities (whether or not they can successfully complete a task) directly affects their metacognitive skills. The eloquent Henry Ford quote, "Whether you think you can, or you think you can't – you're right," emphasizes how much attitude determines success or failure. The student's ability self-perception is a recurring theme in Ambrose's seven learning principles. This importance is highlighted through various lenses in principle four on how learners can

develop mastery, principle six on the importance of class climate in effective knowledge acquisition, and this principle on how students can become self-learners.

In the realm of development communication - namely efforts that aim to introduce ongoing behavior change to avoid harmful repercussions- metacognition can be a useful approach, as it would initiate sustainable awareness and change beyond the message viewership duration.

Nelson and Narens (1990) challenge the metacognition concept by highlighting that the individual executing the task and the individual reflecting upon the task is the same (also known as Comte's paradox). Nelson and Narens suggest that the metacognition process would be conceptualized through two levels. The first is the object level which comprises the thoughts, behaviors, and cognitions as they happen in the world. The second is the meta-level, which receives information from the object level, mirrors it with a mental model comprising the learner's understanding of the task and its required cognitive processes, and guides the object level accordingly (Rhodes, 2019).

The concept of Self-Directed learning is based on popular academic works done in the 1960s and 1970s by various scholars, including Knowles, Rogers, and Tough (Morris, 2019). Van der Walt (2019) states that Malcolm Knowles defined Self Directed learning as a process in which individuals take the initiative in their learning, with or without the help of others. They establish their learning needs, articulate them, recognize the human and material resources needed, select and execute appropriate learning strategies, and assess learning outcomes (Knowles, 1975. p. 18).

A major criticism facing the concept of self-directed learning is its lack of conceptual clarity and operationalization, including the required personal attributes and the role of the educator vs. the role of the information recipient. To overcome this unclarity, Van der Walt (2019) suggests the need to accept that a complete consensus of what self-directed learning entails is unavailable. There is a need for efforts to create an articulate collective balance of thought and action regarding self-directed learning research.

A 2018 study in Brazil suggested that metacognition can be an effective educational approach in self-care learning, namely in preventing post-breast cancer surgery Lymphedema. The study states that with the soaring breast cancer rates in Brazil, it is highly likely that patients would need to undergo surgical interventions. There would be a high chance of Lymphedema development if the needed self-care and preventive measures were not maintained post-surgery.

Given that Lymphedema prevention measures are a lifelong commitment, the study suggests that the metacognitive educational approach effectively guides women to take the necessary actions to preserve their health. According to the study, a metacognition education approach can be used in Lymphedema prevention as follows (De Assis et al., 2018):

- Conveying to the patient all relevant medical background and information, convincing her to voluntarily commit to the preventive measures and seek more information about them.
- Teaching the patient all preventive actions she needs to follow and accordingly empower her to identify the actions most relevant to her context and lifestyle.
- Teaching the patient all the warning signs she needs to watch out for.

- Teaching the patient what to do when warning signs arise despite her following the preventive measures.

Another study was done in 2018 on metacognitive therapy in supporting patients with personality disorders to effectively integrate with society and have employment opportunities, social interactions, etc. The study suggests that, indeed, metacognitive therapy enables patients to cope with their disorder's symptoms and triggers by teaching patients how to become aware of their mental state, recognize when their disorders have been triggered, and what to do once their symptoms have been triggered (Macbeth et al., 2018).

Proposition 7: Self-directed learning guided by a metacognitive approach results in an efficient and sustainable knowledge acquisition process.

2.6.8 Principles of the learning paradigm and existing learning theories

Learning theories provide conceptual models that illustrate how knowledge is attained, processed, and stored during the learning process. The conceptual models include principles at the assertion level to shed light on how the learning process occurs. The conceptual models' principles accomplish this through a consecutive continuum of explanatory, predictive, normative, and informational scientific statements stemming from various schools or authors.

Several learning theories fall under the trends of connectionism or functionalism. Connectionism views the learner as the key driver to the learning process, while functionalism explores internal and external factors that drive and affect the learning

process (Timar & Moraru, 2012). The seven learning principles resonate with those of various existing learning theories from both trends. The next few paragraphs compare and contrast the important learning theories with the proposed learning paradigm.

Bandura's Social Learning Theory suggests that observing and modeling attitudes, behaviors, and reactions of others are integral parts of the learning process. Human behavior is the intersection of environmental, behavioral, and cognitive factors. Bandura advocates that the learning process occurs through attention, retention, reproduction, and motivation. The theory emphasizes social learning and self-efficacy within the overall learning process (Cantero-Sanchez et al., 2021).

Festinger's Cognitive Dissonance Theory proposes that learners seek consistency between their cognitions. When inconsistency occurs, action needs to be taken to restore consistency. When there is dissonance between behaviors and attitudes, attitudes are more likely to change to accommodate behaviors. Festinger suggests that conflict occurs when learners must choose between two incompatible but equally attractive concepts. With more significant yet contradicting beliefs, the learner's dissonance increases. Festinger identified three ways to overcome dissonance: 1) reducing the importance of contradicting beliefs, 2) integrating different harmonious beliefs that outweigh and outnumber the dissonant beliefs, or 3) altering the dissonant belief so that it no longer causes turbulence (Mattia et al., 2021).

Hull's Drive Reduction Theory focuses on the intervening variables which affect behavior. Those variables include prior training, inhibitors, incentives, and motivation. For Hull (1940), the satisfaction of needs takes the lead in determining behaviors.

The drive reduction theory's main assumptions include that 1) learners have need hierarchies that are aroused through drive and stimulation, 2) prior training is more impactful when coupled with reinforcement, 3) prior training stimulated by factors other than those originally conditioned depends on the second factor's closeness to the discrimination threshold, 4) stimulating factors associated with halting of a specific response are positioned as inhibiting conditioning factors, and 5) the delay in response is inversely proportional to the degree to which the effective reaction potential is exceeding the reaction threshold (Sameroff, 2022).

Reigeluth and Stein's (1983) Elaboration Theory of Instruction implies designing the learning process; beginning with simple information and building up to more complex information is conducive to sustainable learning. Reigeluth (1992) suggests that this approach allows learners to establish context for their learning, which will enhance knowledge retention and transfer processes. This approach would also increase learning motivation and the likelihood of self-directed learning. Reigeluth put the learning sequence – from easy to complex- at the theory's center. The theory also emphasizes the importance of analogies and summaries in the learning process to establish further the initially introduced sequence (Gibbons and Boling, 2021).

Thorndike's (1932) Connectionism Theory indicates that learning results from associating stimuli with responses. The association's strengths are moderated by the frequency and nature of the stimulus/response pairing. Thorndike contends that efficient knowledge transfer requires identical elements in the new and original learning situations.

He also maintains that associations occur easier in their original directions than in opposite ones and that rewards affect the associations that manifest them and adjacent temporary associations (Brock, 2020).

Vanlehn's (1990) Repair Theory purports that learners acquire knowledge through making mistakes and working on repairing those mistakes. Some repair efforts serve the purpose while others do not. Attaining the correct way to remedy the mistake helps learners acquire procedural knowledge efficiently. The theory indicates that mistakes often occur due to external factors, and accordingly, those factors should be pre-empted and mitigated when needed. The theory also advises that mistakes happen when learners are exposed to and try to solve novel challenges (Wang et al., 2020).

Weiner's Attribution Theory examined how learners comprehend events and how this affects their behavior and thinking. They try to attribute causes to behaviors to understand why people do what they do. Weiner (1986) concludes that for a person to attribute an action, they need to observe it, believe it was done intentionally, and determine whether the person performing it was forced to do so. The theory focuses on achievement and suggests task difficulty, effort, and ability to be the most important achievement attributions. The theory also offers three causal classifications for attribution: controllability, stability, and locus of control (Graham, 2020).

Wertheimer's Gestalt Theory focuses on the concept of grouping and stipulates that the characteristics of certain stimuli can lead the learner to interpret a concept in a certain way. The theory suggests that grouping is determined by: 1) proximity: elements that are close to each other are grouped together, 2) similarity: elements with similarities

are grouped together, 3) closure: grouping occurs when elements complete a certain

entity, and 4) simplicity: elements will be similar degrees of straightforwardness will be

grouped together. Wertheimer is particularly interested in applying the Gestalt theory

and believes that a successful problem-solver must see the overall structure of the

problem and utilize the Gestalt theory in their problem-solving process (Gundlach, 2020).

Below is a table to illustrate how the suggested learning paradigm builds on and

consolidates principles of existing learning theories.

Table 1: Mapping the Seven Principles of the Learning Paradigm with Principles of Existing Learning Theories								
Seven Principles of Learning	**Principles of Existing Learning Theories**							
	Social Learning Theory	**Cognitive Dissonance**	**Drive Reduction Theory**	**Elaboration Theory**	**Connectionism**	**Repair Theory**	**Attribution Theory**	**Gestalt Theory**
The target audience's prior knowledge can significantly impact the effectiveness of communication for development.		Dissonance occurs when an individual must choose between contradictory attitudes and behaviors. Dissonance can be eliminated by reducing the importance of conflicting beliefs, acquiring new beliefs that change the balance, or removing conflicting attitudes or behaviors.						

Seven Principles of Learning	Principles of Existing Learning Theories							
	Social Learning Theory	**Cognitive Dissonance**	**Drive Reduction Theory**	**Elaboration Theory**	**Connectionism**	**Repair Theory**	**Attribution Theory**	**Gestalt Theory**
Target audience's <u>*knowledge organization models*</u> *can significantly impact the effectiveness of communication for development.*					A series of Stimulus -Response connections can be chained together if they belong to the same action sequence (law of readiness).*			Instruction should be based upon the laws of organization: proximity, closure, similarity and simplicity.
<u>*Motivation*</u> *influences the quality, intensity, persistence, and direction of learning behaviors and affects acquiring new information accordingly.*	Individuals are more likely to adopt a modeled behavior a) if it results in outcomes they value. If the model is similar to the observer and has admired status and the behavior has functional value.		Drive is essential in order for responses to occur (i.e., the student must want to learn). Conditioning only occurs if the reinforcement satisfied a need (i.e, the learning must satisfy the learner's wants).		Learning requires both practice and rewards (laws of effect /exercise).*		Achievement can be attributed to (1) effort, (2) ability, (3) level of task difficulty, or (4) luck.* Causal dimensions of behavior are (1) locus of control, (2) stability, and (3) controllability.	
* This principle can be mapped with more than one of the 7 principles of learneing, and therefore appears more that once in the table.								

Seven Principles of Learning	Principles of Existing Learning Theories							
	Social Learning Theory	Cognitive Dissonance	Drive Reduction Theory	Elaboration Theory	Connectionism	Repair Theory	Attribution Theory	Gestalt Theory
Developing <u>*mastery*</u> *requires learners to first: 1) acquire key component skills, 2) practice effectively integrating them, and 3) know when to apply them.*	The highest level of observational learning is achieved by first organizing and rehearsing the modeled behavior symbolically and then enacting it overtly. Coding modeled behavior into words, labels or images results in better retention than simply observing.	Stimuli and responses must be detected by the organism in order for conditioning to occur (i.e., the student must be attentive). Response must be made in order for conditioning to occur (i.e., the student must be active).			Learning requires both practice and rewards (laws of effect /exercise).* Intelligence is a function of the number of connections learned.*	Bugs that cause errors in procedural tasks are systematic and can be identified.* Once the bugs associated with a particular task are known, they can be used to improve student performance and the examples used to teach the procedure.*		
* This principle can be mapped with more than one of the 7 principles of learneing, and therefore appears more that once in the table.								

Seven Principles of Learning	Principles of Existing Learning Theories							
	Social Learning Theory	Cognitive Dissonance	Drive Reduction Theory	Elaboration Theory	Connectionism	Repair Theory	Attribution Theory	Gestalt Theory
Deliberate practice and goal-oriented feedback are integral to the process of knowledge transfer.				Instruction will be more effective if it follows an elaboration strategy, i.e., the use of epitomes containing motivators, analogies, summaries, and syntheses. There are four types of relationships important in the design of instruction: conceptual, procedural, theoretical and learning pre-requisites.	Learning requires both practice and rewards (laws of effect /exercise).* Transfer of learning occurs because of previously encountered situations.* Intelligence is a function of the number of connections learned.*			
Learner development and learning climate are integral to effective and sustainable learning.							Achievement can be attributed to (1) effort, (2) ability, (3) level of task difficulty, or (4) luck.*	
* This principle can be mapped with more than one of the 7 principles of learneing, and therefore appears more that once in the table.								

Seven Principles of Learning	Principles of Existing Learning Theories							
	Social Learning Theory	Cognitive Dissonance	Drive Reduction Theory	Elaboration Theory	Connectionism	Repair Theory	Attribution Theory	Gestalt Theory
Self-directed learning guided by a metacognitive approach results in an efficient and sustainable knowledge transfer process.					Transfer of learning occurs because of previously encountered situations.* Intelligence is a function of the number of connections learned.*	Bugs that cause errors in procedural tasks are systematic and can be identified.* Once the bugs associated with a particular task are known, they can be used to improve student performance and the examples used to teach the procedure.*		The learner should be encouraged to discover the underlying nature of a topic or problem (i.e., the relationship among the elements). Gaps, contradictions, or disturbances are an important stimulus for learning.

* This principle can be mapped with more than one of the 7 principles of learneing, and therefore appears more that once in the table.

Chapter 3

Proposed Conceptual Model

Development communication campaigns are part of a wider set of development efforts (Snyder, 2003). Scholars identify two categories of communications efforts that can support social change endeavors: enhancing communication channels and providing information. The first set of efforts focuses on easy access to communications technologies, forming communities to facilitate information exchange, and improving the education of audiences regarding knowledge acquisition and communication skills. The second set of efforts focuses on mass communications campaigns, training, advocacy, and public participation. Strategic development communication implementation plans often combine more than one type of effort.

Communications campaigns are crafted around specific objectives, target audiences, and time frames. Those campaigns are implemented with the main purpose of developing a population or country. The definition of development has evolved, and accordingly, development campaign approaches have also been evolving to keep up with current contexts.

This thesis aims to present a new development communication paradigm. The suggested Learning Paradigm focuses on the audiences' internal and external factors that can affect if they successfully acquire information disseminated through development communication campaigns. If yes, how effective and lasting is this acquisition?

3.1 Conceptual Model

Ambrose et al.'s "How learning works: Seven research-based principles for smart teaching" book presents concepts to establish sustainable and effective learning. While the book encompasses all preceding learning theories – as shown in the literature review – it does not prioritize the principles or link them to one conceptual model.

My suggested Learning Paradigm's conceptual model attempts to present a clear mapping of the sustainable learning process. It does so by arranging Ambrose et al.'s principles into the main path comprising the hierarchy of stages a learner needs to go through to reach sustainable learning. Like Maslow's hierarchy of needs, this path prioritizes learning principles beginning with the initial processing of newly acquired knowledge to become self-directed learners who manage their learning process.

Mapping out learning processes for a clear conceptualization of the steps that lead to sustainable learning is similar to Gagne's "Cumulative Learning Model," devised in the 60s. In his model, Gagne suggests that learning is a cumulative process. He adds that learning simple tasks are stepping stones toward learning more complex tasks.

My model's main path comprises the below sequence:

3.1.1. Motivation: Filgona and Okoronka (2020) describe motivation as an impulse that drives all human behavior, including learning. The scholars suggest that whether or not the students are motivated to learn can make or break the learning process. Being in a learning context or being subjected to learning material is not enough to accomplish learning. It is the duty of the teacher or message communicator to motivate the learner enough that they successfully acquire the shared knowledge.

The suggested conceptual model then moves to goal-directed practice and targeted feedback upon achieving motivation.

3.1.2. Goal-Directed Practice and Targeted Feedback: The London Business School (LBS, 2022) highlights the important role directed practice and targeted feedback play in enhancing learning quality. According to LBS, for practice to be effective, it needs to be goal-oriented, meaning that it needs to be designed to push the learner towards achieving the learning goal. The institution adds that for goal-oriented feedback to contribute to sustainable learning, it needs to be coupled with targetted feedback which lets the learner know where they stand from their learning goal and what they need to do to come closer to it. A motivated learner who practices deliberately and receives goal-oriented feedback then moves on to achieving mastery.

3.1.3. Mastery: Pattani (khan academy, n.d.) describes skills mastery as trying and failing many times until a person succeeds in accomplishing the task without thinking about it. She adds that the educator plays a big role in driving the learner to achieve mastery. The educator needs to encourage the learner to adopt a growth mindset that views setbacks as learning opportunities. The educator also needs to give clear feedback and share problem-solving strategies that enable the learner to progress. A motivated learner who practices deliberately receives goal-oriented feedback and has achieved mastery can reach the top of the sustainable learning hierarchy, becoming a self-directed learner.

3.1.4. Self- Directed Learning: Loeng (2020) describes self-directed learners as persons who take the initiative and responsibility for their learning. They set their own

learning goals and think about how to accomplish them. According to Leong, self-directed learning occurs both outside and inside educational institutions. Regarding development communication, self-directed learners would pursue learning in their day-to-day lives, regardless of whether they are within an educational institution. Knowles (1970) suggests that self-directed learners acquire knowledge more and better than passive information recipients. He also adds that self-directed learners have greater motivation and are inclined toward applying the acquired knowledge in their daily lives.

In addition to its main path, the suggested conceptual model also includes moderating variables. According to King (2013), a moderating variable "affects the direction and strength of the relationship between an independent or predictor variable and a dependent or criterion variable." The model's moderating variables can encourage or hinder the process of sustainable learning. Those variables are:

3.1.5. Learner's prior knowledge: According to Schmidt, Rothgangel, and Grube (2015), prior knowledge is the information a person already has before learning about a new topic. Prior knowledge is suggested to have a role in knowledge acquisition. Dochy et al. (1999) estimated a 30% to 60% variance in learning outcomes attributed to prior knowledge. In development communication, prior knowledge can be a deal-breaker. For example, a woman convinced that birth control is a religious sin would not even consider listening to a family planning campaign.

3.1.6. How learners organize their knowledge: Angelo's fourteen principles of improving higher learning (1993) suggest that information processed in a personally meaningful and interconnected manner has higher chances of being

remembered and used. Accordingly, acquired information processed in a silo is highly unlikely to be retained. A campaign should be designed to deliver the message to encourage interconnected knowledge processing in development communication.

3.1.7. The learning climate: Daggol (2019) describes the learning environment as the learner's physical, psychological, and emotional surroundings. She adds that when those surroundings are positive, they encourage an efficient and lasting learning process. The Victoria State Government Education and training department (nd.) suggests that a more successful learning process occurs when the learner is surrounded by supportive individuals, including the educator. The learning climate should be capitalized upon if conducive to learning or otherwise mitigated in designing development communication campaigns.

3.1.8. The Learner's current level of development: Flook et al. (2020) suggest a relationship between a learner's cognitive and emotional development and how efficiently they learn. Widodo et al. (2020) suggest that learning readiness includes a person's ability to respond to learning material and social, linguistic, and cognitive skills. In development communication, the messaging and approach must be tailored to the target audience's capabilities and stage of development.

In the conceptual model diagram (Figure 9), principle six has been broken down into two separate constructs. The principle indicated that the learner's social, emotional, and intellectual climate and development level moderate sustainable learning. While this statement is true, learning climate and level of development are measured differently. The former would be measured in terms of the learner's surroundings and whether they are

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conducive to learning. At the same time, the latter would be measured in terms of the learner's capabilities to process information. Based on this difference in measurement units, I did the modification.

This thesis suggests a new learning theory for the continuously evolving development communication campaigns. The suggested learning paradigm is fully audience-centered. It aims to examine the role factors such as capabilities, knowledge processing models, and surroundings play in the success of development communication campaigns.
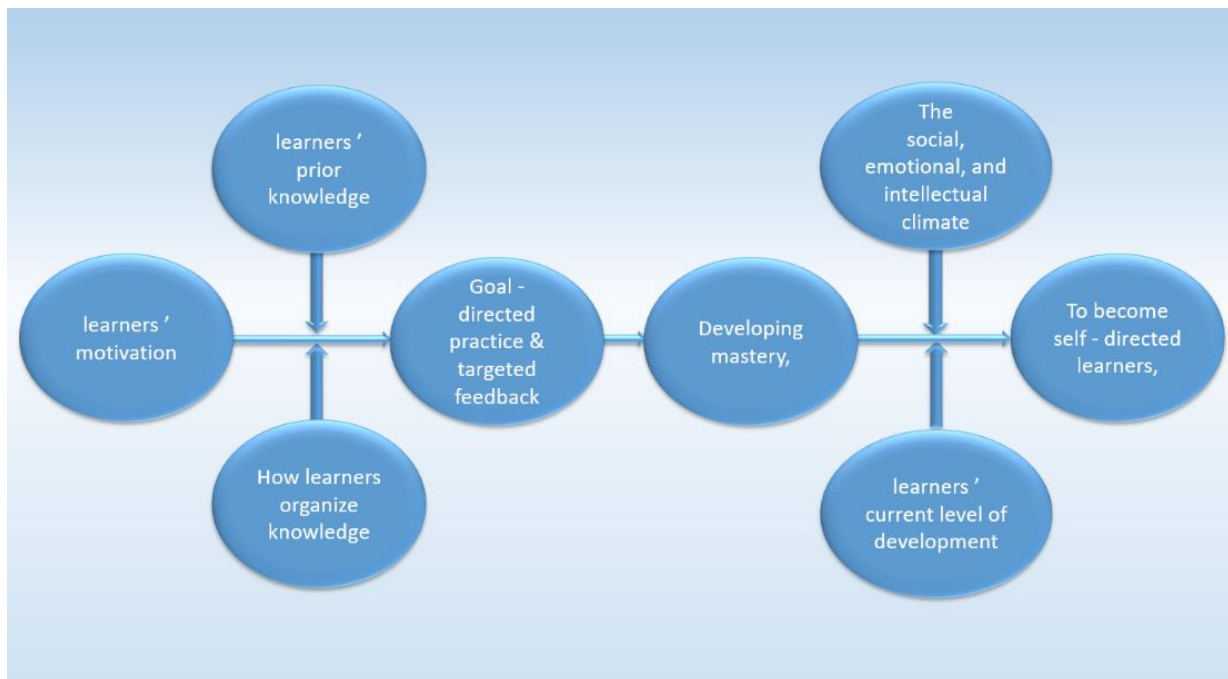
Figure 9. Learning Theory Conceptual Model

The author developed this model.

Below is a listing of the conceptual model's propositions:

Proposition 1. Target audience's prior knowledge can significantly impact the effectiveness of communications for development.

Proposition 2. Target audience's knowledge organization models can significantly impact the effectiveness of communications for development.

> Proposition 2 a. The sparse knowledge organization model negatively impacts the effectiveness of communications for development.

> Proposition 2b. The interconnected knowledge organization model positively impacts the effectiveness of communications for development.

Proposition 3. Motivation influences the quality, intensity, persistence, and direction of learning behaviors and affects acquiring new information accordingly.

Proposition 4. Developing mastery requires learners to first: 1) acquire key component skills, 2) practice effectively integrating them, and 3) know when to apply them.

Proposition 5. Deliberate practice and goal-oriented feedback are integral to the process of knowledge transfer.

Proposition 6. Learner development and learning climate are integral to effective and sustainable learning.

Proposition 7. Self-directed learning guided by a metacognitive approach results in an efficient and sustainable knowledge transfer process.

Chapter 4

Methodology

Development programs began in the 1950s, stemming from the beliefs that newly independent countries had great developmental needs, governments can socially engineer societies for the better, and development assistance can be a way to influence countries in light of weakening colonial ties and the cold war (Snyder, 2003).

Mass media channels are a key factor in political development (Lerner, 1958). Other scholars such as Schramm agreed on this concept, with Schramm calling mass media a "magic multiplier" that can quickly spread information throughout societies. (Schramm 1962). This line of thought was harmonious with Roger's Diffusion of Innovation theory, which suggests a model for spreading innovations through communities (Rogers, 1962, 1995).

Results of the development communication campaigns of the 60s were not promising, as despite efforts exerted, inequalities persisted and even increased (Díaz Bordenave, 1976; Isbister, 1991; Melkote, 1991). The 1970s New World Economic Order pushed for development programs that actually resonate with the needs of end beneficiaries and would truly change their lives for the better. Communications campaigns were an important part of this new wave of development programs.

As the global, political and socio-economic scenes constantly change over time, development communication efforts strive to be relevant and impactful. Development communication efforts are no longer top-down monologues, and people are no longer passive recipients of the information. For that, the development communication toolbox

is constantly growing and evolving. Today development communication campaigns can have different objectives such as awareness-raising, behavioral change, crisis management, stakeholder engagement, or any other objective, and the campaign tools should be designed accordingly.

Salkind (2010) defined primary data collection as how researchers gather firsthand from the subjects under study. Such collection techniques further ensure the accuracy of transferring data from source files to the research document. Wimmer and Dominic (2013) suggest that in qualitative research, scholars begin their research with a drafted set of questions to identify respondents and add follow-up questions as needed. They indicate that variables are not necessarily quantified in this type of research.

Qualitative research enables an in-depth understanding of the topic under study. It also enables researchers to explore the topic under study in its natural setting and to uncover aspects of their topic that they had never considered before. On the other hand, generalizing the findings would not be possible if the sample size was too small. In cases where the research is not efficiently planned, it will not result in any valuable findings.

4.1 In-Depth Interview Details

4.1.1 Sample

My methodology was to conduct twelve in-depth interviews with four categories of development communication professionals (advertising, public relations, campaign owners, and on-the-ground development professionals). Each interviewee has over twenty years of experience in their field. The sample size allowed me to gain enough insights for solid preliminary research and, at the same time, be able to analyze the data

efficiently. Strategic communication professionals (including public relations experts) assemble the campaign's strategy, objectives, and messaging, guiding the advertising experts who implement the campaign. Accordingly, the sample choice covers the whole development communication value chain.

4.1.2 Data Collection

This mix of interviewees enabled me to explore development communication from various angles. The interviews were conducted through zoom in English and lasted from 60 to 90 minutes each. Zoom interviews allowed me to conduct the meetings in a manner that was convenient to the schedule of the interviewees. They are all top executives or CEOs of companies with 20 plus years of experience and have very busy schedules, so face-to-face interviews would have been challenging.

4.1.3 Rationale for Using In-Depth Interviews

In-depth interviews enabled me to probe questions as needed, discuss sensitive topics, avoid group influence, uncover hidden motives, and interview competitors. I opted not to resort to focus groups as the interviewees' high ranks and busy schedules would make it challenging to find a time slot suitable for all.

The interviewees come from four different yet interconnected worlds. They may not be comfortable or willing to spontaneously discuss their opinions and points of view in front of their peers, clients, or service providers. Another reason why I avoided focus groups is that in a two-hour, 120-minute discussion including 12 people, each person would have ten minutes of air time. This limited allocation would not allow enough in-depth discussions of opinions.

Table 2. The 12 professionals interviewed in this research.

Advertising Agencies Involved in Development Communication Campaigns		
Mr. Ahmed Badie	Chairman and CEO of TBWA Egypt	Apr. 20, '22
Ms. Sherine Helal	CEO & Manager Partner of HIT Creative Communications	Apr. 28, '22
Mr. Haitham Abdel Basset	Founder and CEO of Brandworx	Apr. 29, '22
Public Relations Professionals Involved in Development Communication Campaigns		
Dr. Sherine Zaklama	CEO of Rada Public Relations	Apr. 22, '22
Ms. Heba Selim	Freelance Management and Communications Consultant and Trainer	Apr. 27, '22
Ms. Randa Nassar	Former Managing Director of Weber Shandwick Egypt	Apr. 29, '22
Owners Funding Development Communication Campaigns		
Dr. Dalia AbdelKader	Chief Sustainability Officer of the Commercial International Bank (CIB)	Apr. 21, '22
Ms. Sara Eid	Head of Transparency and Citizen Engagement Unit, Official Spokesperson for Macro Policy and State Budget at Egypt's Ministry of Finance	Apr. 26, '22
Ms. Zeinab Hegazi	Communications, Public Affairs and Sustainability Director for CEMEX Egypt and UAE	Apr. 28, '22
NGOs Implementing Development Communication Campaigns		
Ms. Maha Helaly	Disability and Development Consultant to the Minister of Social Solidarity	Apr. 25, '22
Ms. Doaa Mabruk	Co-Founder and Managing Director of Baseera Foundation	Apr. 25, '22
Ms. Ola Mohamed	Manager of Communications and Awareness in Children Cancer Hospital Egypt 57357	Apr. 25, '22

Chapter 5

Analysis and Findings

This chapter will report the main themes gleaned from the responses of the 12 in-depth interviews. The themes are organized under the seven principles. The findings below show how each principle's components affect the effectiveness of development communication.

5.1 Principle 1: Target audience's prior knowledge can significantly impact the effectiveness of development communication.

- The background of audiences affects how they receive the message.

- We need to explore the audience's prior knowledge, determine their motivation factors (based on their perceptions, values, existing beliefs, and existing information), and craft messages accordingly. Prior knowledge research can also help us identify opinion leaders who can get the message through to the target audiences. Communications for development campaigns need to be done in an engaging and tailored manner. Investigating the prior knowledge of target audiences will enable the campaign owners to do this effectively.

- Changing prior knowledge is done over time, gradually. Whether the level of knowledge is too low or the beliefs are too deeply embedded in the minds of audiences, consistent exposure to messages over a long period will ensure sustainable learning. An on-the-ground practitioner gave an example of how she managed to raise awareness in a school on the inclusion of visually impaired students over time. Teachers who were initially reluctant to have visually

impaired students in their classes over time became welcoming and even proud to be teaching those students.

- Identifying the target audience's development stage and knowledge organization model is important to craft the campaign's messages accordingly.

- Segmenting audiences per prior knowledge is useful to tackle this knowledge effectively. It is worth noting that lower socio-economic classes are less willing to have their prior knowledge challenged than higher socio-economic classes because lower socio-economic classes have minimal amounts of information. They view the information as all they have and resist it being challenged.

5.2 Principle 2: Target audience's knowledge organization models can significantly impact the effectiveness of development communication.

- Target audiences' knowledge organization models significantly impact the effectiveness of development communication campaigns.

- The interconnected knowledge organization model increases the likelihood of sustainable and efficient learning.

- For the interconnected knowledge organization model to occur, development communication campaigns should adopt holistic preparation and implementation approaches. The campaigns' designs should ideally include tools that encourage interconnected knowledge organization. Those tools can include activities, videos, and real-life examples.

- The campaign's tools and messages must be tailored to the target audience's needs, motivating factors, prior knowledge, and rituals. Ritual-specific messages

enable audiences to easily plug the targeted behavior into their daily lives. Other factors that facilitate this plug-in are choosing an appeal in sync with the target audience's psychology, identifying and targeting figures that influence the target audience, and using clear and consistent messaging.

- An advertising expert gave an example of how a campaign dedicated to raising awareness of the importance of saving electricity used animated characters relevant to the target audiences and eventually led audiences to commit to the habit of turning off lights before leaving a room.

- Prioritizing key messages is key to avoiding overburdening the target audiences and encouraging interconnected knowledge organization.

- Due to their high internet research abilities, younger audiences are more likely to adopt the interconnected knowledge organization model. Older, less tech-savvy audiences can be encouraged to use the interconnected knowledge organization model by being subjected to emotional appeal.

5.3 Principle 3: Motivation influences the quality, intensity, persistence, and direction of learning behaviors and affects acquiring new information accordingly.

- The motivation to learn is an integral element of sustainable and effective learning.

- Campaign owners must segment target audiences per degree of motivation and motivation factors and design their campaigns accordingly. When audiences feel understood, they are more likely to listen to the messages presented to them. Also, consistent, clearly communicated messages that convey the campaign's value and calls to action are likely to increase motivation.

- Motivation encourages interconnected knowledge organization. A motivated learner is driven to mirror information they receive against their prior knowledge.

- Unmotivated people should be targeted through channels and messages that don't require much effort to be understood.

- An interconnected knowledge organization model increases motivation. For example, the 57357 cancer hospital in Egypt encouraged their employees to shut their office lights on their way out to save energy by highlighting that the money saved from the electricity bill will be channeled to treating more patients.

- Engaging audiences motivates them to listen to the campaign's messages and is especially applicable to older individuals who have accomplished their work and family goals and are looking for more goals to fulfill. Making older audiences feel needed will encourage them to pay attention to development communication messages.

- Messages delivered in entertaining and culturally relevant ways are likely to increase motivation.

5.4 Principle 4: Developing mastery requires learners to first: 1) acquire key component skills, 2) practice effectively integrating them, and 3) know when to apply them.

- To develop mastery, learners need to go through the following process: a) acquiring the skill, b) practicing effectively integrating it into their daily lives, and c) knowing when they need to apply them.

- When the context allows, the implementation plans of development communication campaigns should include innovative activities that allow target audiences to go through the three stages required for mastery. The implementation plans should also acknowledge that those three steps will require a long time.

- It is important to identify the target audience's existing level of knowledge to know how far they have already come in the pre-requisites of mastery.

- It is best to convey simple messages to ensure that all levels of mastery pre-requisites attainment have been covered (from the least advance to the most advanced).

- Enabling target audiences to reach mastery requires development communication campaigns to list habit creation as one of their main objectives. Identifying the audience's needs, prior knowledge, and overall context is integral to guiding them towards habit formation. To encourage mastery, it is also important to communicate messages in a simple, concise way that clearly illustrates the applicability of recommended steps.

- Sometimes younger audiences don't have the discipline needed to go through motivation pre-requisites. In this case, highlighting the benefits of completing the three steps might encourage discipline. The same applies to all age brackets of unmotivated audiences.

- Sometimes target audiences strongly master skills other than those targeted by development communication campaigns. A public relations expert gave the example of illiterate people who have strong mathematical skills and are targeted by illiteracy campaigns. Sometimes it is good to acknowledge the existing

mastery and guide audiences on how they can further capitalize on them and use them as tools to master the sought-after skills.

- To encourage mastery, you need to speak the audience's language and operate within their comfort zone.

5.5 Principle 5: Deliberate practice and goal-oriented feedback are integral to the process of knowledge transfer.

- Deliberate practice and goal-oriented feedback are integral to effective learning.

- Deliberate practice and goal-oriented feedback transfer knowledge to the audiences' long-term memory and enable them to achieve mastery. This process happens over a long time.

- Deliberate practice and goal-oriented feedback channels must be tailored to the audience's context. For example, community health workers can be used in underdeveloped areas which do not have access to the internet and mass media channels.

- Deliberate practice and goal-oriented feedback are applicable only when target audiences are motivated to change their behavior and are willing to receive feedback on their performance.

- Goal-oriented feedback must be delivered in a non-imposing, non-condescending, assertive, constructive manner tailored to the target audience's context. Otherwise, it will be useless or counterproductive. Accordingly, training the

feedback provider on how to give goal-oriented feedback is crucial for the success of the process.

- The deliberate practice applies to development communication efforts, but goal-oriented feedback is only applicable when a call to action occurs.

- Efforts to encourage deliberate practice and goal-oriented feedback need to be directed at the correct targets, which entails a deep and accurate understanding of the development campaign's context. A campaign owner gave the example that targeting women in family planning campaigns would be useless if it is the men that make those sorts of decisions.

- The learning objective needs to be clear to the audience to encourage deliberate practice and goal-oriented feedback. This will also manage audience expectations of the requirements and outcomes.

- Bottom-up and top-down communications are a form of needed goal-oriented practice in policy change. Policymakers need to hear from the public before they form policies and after they are enacted to ensure that they serve the intended purpose.

- When audiences feel that they have an active and needed role in the development efforts, they will be more encouraged to conduct deliberate practice and open to receiving goal-oriented feedback.

- Deliberate practice in development communication campaigns is done through intensity, frequency, and continuity of messages.

5.6 Principle 6: Learner development and learning climate are integral to effective and sustainable learning.

- A supportive social and cultural learning climate will encourage sustainable learning.

- A learner's ability to process messages affects the impact of development communication efforts.

- The learner's ability to process messages is affected by their prior knowledge. Unconducive prior knowledge can lead audiences to interpret messages differently or reject them altogether. A campaign owner gave the example of how some communities view family planning as religiously incorrect. Unless spoken to by trusted clerics, they will reject any message trying to encourage family planning.

- Positive learning climates and high learner development pave the way for target audiences to become self-directed learners.

- In-depth research is crucial to identify opportunities and challenges in the audience's learning environment and determine their level of development. This research will be used to build campaigns tailored to the target audience's overall context. It is especially important to accurately identify people who influence the target audience's decisions and include them in the campaign's targets. Segregating audiences per learning climate conduciveness and level of development also enables the campaign to tailor its messages and approaches to all target audience categories.

- Awareness-raising, incentives, and motivation are among the ways to deal with unconducive learning environments and increase the development of learners. In certain cases, building on the target audience's existing empathy and including practical activities in the implementation plan of campaigns can also be effective in increasing audiences' development.

- Motivation can mitigate an unconducive learning climate. Motivating increases when target audiences trust the campaign and feel that it cares about them. Back to the importance of in-depth research, which allows the campaign to address the audiences in their language and be personalized enough to earn their trust.

- Developed audiences can organize their information in an interconnected manner and are more motivated to learn as they see value in the process. They will accept deliberate practice and goal-oriented feedback to become self-directed learners eventually.

5.7 Principle 7: Self-directed learning guided by a metacognitive approach results in an efficient and sustainable knowledge transfer process.

- Self-directed learning supports an efficient and sustainable knowledge transfer process.

- Self-directed learning needs time to occur. Accordingly, efforts dedicated to achieving self-directed learning must be frequent, consistent, and long-term.

- Motivation, conducive learning environments, conducive prior knowledge, and a foundation of ample information are pre-requisites to achieving self-directed

learning. Accordingly, research of the audience about self-learning prerequisites is integral for building a campaign that resonates with its audience. Furthermore, segregating audiences is integral to effectively reaching each target audience subgroup.

- The seven principles of learning are similar to Maslow's needs hierarchy, where all principles build on one another, and reaching the last principle entails completing all the preceding principles first.

- There needs to be realistic expectations regarding the number of self-directed learners resulting from a development communication campaign. In this context, quality is over quantity as a few self-directed learners can become campaign ambassadors and create a huge ripple effect in their communities.

- Availing easily accessed information further enables target audiences to become self-directed learners.

- To push audiences towards self-direct learning, we need to first: capture their attention, change their perception, make them feel that the message is relevant to them then articulate our message and call to action clearly.

- Engaging target audiences, creating communities, and igniting a sense of competition are key factors initiating motivation and self-directed learning. A campaign owner who works on awareness-raising policies gave the example of how she opted to educate a large group of people about her cause and then helped them form a community through which they can continue exchanging knowledge and spreading what they learned.

Chapter 6

Discussion, Conclusion, and Future Implications

6.1 Discussion

This study suggests a new learning paradigm in development communication that is more audience-centric than the dominant paradigm and more structured than the current participatory paradigm. The suggested learning paradigm builds its conceptual model around the development communication campaign audience's internal and external factors, which directly influence their decision making. Those factors also determine if they receive the message and how they process it.

For development efforts to be truly impactful, they need to be sustainable. The UNESCO describes sustainable development efforts as those which fulfill present needs while supporting the effectiveness and fruition of future efforts. Sustainable development adopts a holistic approach that interwinds economy, environment, culture, and society (UNESCO, n.d.). Coupled with being sustainable, they need to be inclusive for development efforts to be truly impactful. The USAID eloquently describes inclusive development as the belief that every member of society, regardless of their identity or socioeconomic positioning, is integral to the transformation of society as a whole (USAID, n.d.).

In light of the above description, sustainable and inclusive development efforts should be supported by communications efforts that are also sustainable and inclusive. Sustainability and inclusiveness are two key features in the type of knowledge transfer sought after by the suggested learning paradigm. In the context of the learning paradigm,

sustainable and inclusive learning continues with the target audiences even after the campaign concludes and accurately identifies and reaches all relevant targets.

Servaes (2020) describes communication for development as the advancement of knowledge that aims to generate a consensus for action on social change, which acknowledges and factors in the capacities, needs, and interests of all those concerned. Servaes adds that while communication channels and technology are important in achieving communication for development, their use is not an end. Traditional media, group media, and interpersonal communication also play a fundamental role in communication for development. Servaes's take on communication for development resonates with the suggested learning paradigm on the importance of understanding the target audience's context and tailoring all communications efforts accordingly.

The study conducted twelve in-depth interviews with four categories of development communication professionals (advertising experts, public relations experts, campaign owners, and on-the-ground development professionals). Each interviewee has over twenty years of experience in their field. In the interviews, I discussed principles that constitute the learning paradigm with the experts, getting their insights on whether or not they can apply to development communication. The twelve interviewees agreed with all discussed principles. But as expected, each category approached principles differently according to their specialty area.

One common theme in all categories was the critical role thorough research plays in the success or failure of development communication campaigns. Existing cultural and religious beliefs drive acceptance or rejection of development communication messages.

Accordingly, the underlying causes of existing behaviors need to be clearly understood to be addressed accurately.

One on-the-ground development practitioner gave an example she encountered during her work on an awareness campaign implemented in underserved communities to highlight the importance of handwashing in preventing the transfer of harmful germs to children's eyes, impairing their vision over time. After thorough research on why parents did not encourage children to wash their hands after eating, she found an existing cultural belief that food is a divine blessing and that children should not be encouraged to wash this blessing off their hands. Details such as specific as the audience's terminology and pronunciation are crucial for effectively getting the message through.

One public relations expert gave an example that a community health worker addressing mothers in impoverished areas about the importance of using diapers can have counterproductive efforts if she does not use the mother's same terminology and pronunciation when referring to a diaper. This need for thorough pre-design research is relevant to all paradigm principles. By conducting this research and acting upon it, the campaign will be comprehendible, relevant, and encouraging for the target audiences. A lack of thorough research will fail in the campaign and likely have counterproductive effects.

The need for thoroughly researching the audience's context is especially important in the current era where social media and online platforms are taking center stage in all forms of communications, including development communication. An uninformed development communication practitioner can falsely assume that social media and digital platforms are important elements in any development communication

efforts due to their current prominence and high prevalence. While sometimes, various factors such as digital gaps and social norms in some contexts can rule out the usefulness of digital tools altogether.

Another important point of all categories regarding digital platforms is that the high internet prevalence rates have increased the viewer's options and decision-making capacities. A campaign can no longer impose information onto viewers.

There was also a consensus that each group of target audiences is likely to be further subdivided into more specific target groups. Accordingly, segmentation of target groups is necessary to ensure that each subgroup has its tailored messages and approaches. This segmentation is relevant to all the paradigm principles and also applies when there are demographic variations within the same socio-economic group. For example, one public relations expert suggested that an effective way to commit older retired audiences is to give them a sense of purpose and feel needed. It is an effective way to get their buy-in on a development communication's campaign message.

Another concept that all categories agreed on was that sustainable impacts of development communication take time to settle in the minds of target audiences. It was clear from the interviews that consistency, frequency, and clarity of communications over time were prerequisites to sustainable development communication. This was particularly evident in the experiences of on-the-ground practitioners who worked on raising awareness on the inclusion of visually impaired and autistic individuals and showing how they can be integrated into society. In the case of the Autism awareness-raising campaign, the practitioner first had to explain to audiences what Autism was and then proceed to encourage the inclusion of autistic individuals into society.

All interviewees also agreed upon the conceptual model's start and endpoints. There was a general agreement that motivating audiences to listen to and act upon the disseminated messages is the first step in implementing development communication campaigns. The phrase "what's in it for me" regularly surfaced across all categories. Interviewees also agreed that self-directed learning is the biggest indicator of a development communication campaign's success and final step. They also agreed that the suggested model is valid and similar to Maslow's hierarchy of needs, where reaching going from the first step to the last step requires the completion of all the sequenced steps in between.

On the ground development practitioners are the group closest and best acquainted with development communication's target audiences. This category focused on the importance of engaging with target audiences and finding innovative and interactive tools to get their messages through to them. On the ground practitioners emphasize the importance of hand-holding target audiences (deliberate practice) towards achieving self-directed learning. They made it clear that communicating with audiences – especially those severely underdeveloped– through traditional communication channels will not work. They recommended that rather than one-way communications toward the audience, it is best to resort to innovative engagement tools to encourage the audience to buy into the messages.

All interviewees agreed that support from surrounding individuals is integral to the success of development communication. On the ground practitioners and advertising experts had a more in-depth insight regarding this point: development communication's campaign target audiences are not the end beneficiaries themselves. Often individuals

around them who influence their decision-making are crucial to target. A deep understanding of the individual's social and cultural context is integral to the accurate and comprehensive identification of target audiences. Public relations experts, advertising experts, and campaign owners all showed how family planning is not always the wife's choice. Sometimes the husband or the mother-in-law are the ones who make a family's family planning choices, and accordingly, they should be addressed in family planning campaigns as well.

Advertising experts were more focused on techniques and strategies for capturing the attention of target audiences and changing their perceptions. They suggested that using mass communication tools such as visuals, jingles, and animated characters can lead to successful knowledge acquisition if relevant and attractive to audiences. Advertising experts also put a special focus on creating rituals, highlighting that a successful communications campaign integrates the intended behavior change or product into the audience's daily lives without them noticing. All advertising experts gave the analogy of how Nescafe succeeded over the years, to the extent that coffee is often referred to as Nescafe in Egypt.

Public relations experts focused on initiating dialogue with target audiences through face-to-face interaction. Those experts are more directed towards stakeholder engagement and advocacy. Accordingly, their target audiences include policy makers, donors, and the media. Public relations experts are very careful to engage with stakeholders in a clear and non-imposing manner. Through their dialogue with stakeholders, they aim to create campaign ambassadors that go on to disseminate messages amid their surroundings.

According to the experts, stakeholder engagement specialists must always be up to speed with the latest developments and have emergency stakeholder engagement tools. When a reputational risk occurs, they are ready to remedy it immediately. Public relations recognize that mistakes and mishaps are bound to happen. When they take place, transparency, accountability, and fast action are integral.

Regular engagement with audiences can also be an effective way to manage or mitigate risk. A public relations expert gave the example of when a famous author questioned the integrity of the 57357-cancer hospital in directing its funds to patients. The hospital's public relations team invited donors to the hospital to see on the ground how their money was being spent. The team discovered that donors who accepted the invitation and visited the hospital were not affected by the allegations and continued their donations. That was not the case for those who declined to visit the hospital.

Given that campaign owners are those who fund or sponsor development communication campaigns and are held accountable by their management for the money spent on those campaigns, I found those owners focused on getting value for money. Those owners take a holistic and systematic approach when planning their development communication campaign to ensure that the biggest visible and sustainable impact is accomplished by spending the least possible money. Owners resort to innovative strategies like creating communities of experts who can then move on to become campaign ambassadors, which is a tool also used by the public relations expert category.

Two important elements in communications campaigns that any of the experts did not mention are key performance indicators (KPIs) and monitoring and evaluation. Key performance indicators are set at the beginning of the campaign, and they are the

operationalization of a campaign's objective achievement. For example, KPIs for an anti-drug campaign can be a specific number of addicts calling the hotline for rehab information, admitting themselves, and getting successful treatment. KPIs need to be ambitious yet realistic as some contexts are more challenging than others.

Systematic monitoring and evaluation (M & M&E) throughout the campaign ensure that KPIs are met on schedule. It is through M&E that campaigns introduce changes to their designs or adjust KPIs as needed. M&E is also essential at campaign conclusion time to guide future similar efforts. In addition to being systematic, effective M&E needs to be supported by readily available guidance on immediate next steps once unfavorable performance indicators present themselves.

The interview outcomes gave the conceptual model face validity, as there was a consensus on the presented concept. The outcomes also gave the model construct validity as there was also a consensus among all principals. The principals earned discriminant validity since the experts could easily differentiate between each presented principal. Additionally, the consensus on the relationship between principles suggests that the model is reliable. The experts were intentionally not shown the conceptual model to test its reliability effectively.

6.2 Conclusion

All interviewees agreed with the suggested conceptual model and saw potential in the learning paradigm's support for sustainable and inclusive development. Thorough research is mandatory for the effectiveness of the learning paradigm. Unless the communication efforts are completely harmonious with the target audience's culture, characteristics, socioeconomic status, and capabilities, they will be guaranteed to fail. Investing time, effort, and money in researching target audiences enough to put ourselves in their shoes is a step toward successful development communication.

High internet prevalence rates have steered audiences away from being passive information recipients to being selective and aware information recipients. There is no cookie-cutter one size fits all approach to development communication implementation plans. Some factors such as digital gaps and social norms can eliminate the applicability of using digital platforms in some development communication contexts. Regardless of the implementation mechanism selected, it needs to be relevant, comprehendible, innovative, and engaging to achieve its goal.

Accurately identifying a comprehensive list of target audiences needs a thorough look at the campaign's social context. Often, the campaign's end beneficiaries are not the decision-makers who choose to embark upon the communicated behavior change. Thus, to avoid missing links, it is crucial to include decision-making influencers from within the end beneficiaries' close circles in the list of campaign target audiences.

Finally, to ensure impactful, sustainable, and inclusive development communication, the creators need to fully understand the meaning of sustainability and

inclusiveness in that campaign's context. They also need to be aware of the development objectives fulfilled by the promoted effort and how this effort will improve the lives of end beneficiaries. When the campaign team puts the pieces of the puzzle together (in-depth audience information and the development initiative in-depth information), they will be more likely to produce development communication material that serves its intended purpose.

6.3 Limitations

I chose to build my research on one theory. However, as mentioned in the literature review, Ambrose et al.'s work encompass all preceding learning theories.

My sample is limited to 12 in-depth interviews. However, the interviewees were strategically selected to cover the four important stakeholders in the ecosystem of development communication. Those four groups were:

- Owners that finance development campaigns and accordingly have the power to influence and guide their content.
- Advertising agencies that the owners commission to develop and implement the communication campaign in the media to support those who will implement the campaign on the ground.
- Public Relations agencies and consultants who are usually involved in development communication campaigns to bring in support from the society, government agencies, media, and other stakeholders to support the understanding and development of the communication campaigns.

- The on-the-ground implementers of development communication campaigns who are typically NGOs and foundations that deliver the message and instill the desired behavior on the ground. In many cases, they manage their development communication campaigns or align with owners funding the campaign.

I deliberately selected three high-level professionals with 20 plus experience in each of the four stakeholder groups. These professionals dedicated 60 to 90 minutes of their time to provide insights on the seven principles, one principle at a time. I believe that those 12 in-depth interviews were the best approach to develop a profound understanding of how those seven principles apply to development communication campaigns at this exploratory stage.

The 12 in-depth- interviews produced a thick description of applying the seven principles to development communication. Those interviews also produced a wealth of insights into the process, priorities, and hurdles in implementing the seven principles. Nevertheless, to test the conceptual model proposed in this thesis, there is a need to develop the measurement model associated with the proposed conceptual model. Each of the eight constructs identified in the conceptual model must be measured through four to six indicators (questions or items) that need to be developed in future research.

My sample was limited to the Egyptian context. All 12 professionals practiced mainly in Egypt, with a few exceptions who practiced in the MENA region. Nevertheless, their generously provided insights probably apply to all developing countries, where development communication is most needed and used. Other geographical contexts in Asia or Latin America may require further research and testing.

6.4 Future Research

As with all academic work, this thesis has some shortcomings and areas needing further research that should be addressed in future research efforts. Future research is needed to develop a measurement model and use it to test the conceptual model across contexts and geographic regions, especially in Egypt, where the realm of development communication is currently flourishing and needs guidance and insights. To have Egypt-specific findings, it would be beneficial to conduct in-depth interviews with Egypt-centric experts from each category.

The proposed model is based on the 12 in-depth interviews conducted, which were generic to a great extent, and covered different kinds of communication campaigns across sectors such as health, family planning, domestic violence, child abuse, antismoking, etc. Given that development communication often tackles highly sensitive topics or deeply embedded ideas, it may very well be that the proposed model would need to be tweaked to fit specific contexts. Further research is needed to test if the proposed model applies to all sectors in its current formulation.

There are various campaign media mixes, including online-only, online and TV, traditional media only, and on the ground activation through events the target audiences attend. It would be good to explore whether all principles in the suggested model are applicable regardless of the media mix involved in the campaign. More insights on whether further tailoring of the model is required should the campaign be bound to certain mixes. I looked at the four stakeholders involved in creating and managing development communication campaigns. However, future research should also address

other stakeholders, such as the learners themselves and corporate social responsibility (CSR) managers in large corporations.

CSR managers who want to join the campaign or develop adjacent campaigns for the same cause should also be addressed in national campaigns. Lack of coordination between campaign managers may reinforce the campaign or confuse the audience, and good coordination may reinforce the campaign. Another possible group of stakeholders to be addressed is policymakers responsible for institutionalizing the sought-after change. They may have views on the campaign in light of the country's wider development priorities and the institutional capacity of the relevant government agencies. Also, Media outlet owners who may view how each media outlet type (example: newspapers, TV shows) can best serve the campaign objective should be considered.

Another area for future research will be if the owner of the development campaign is alien to the culture of the learners and the context in which the development communication campaign will be implemented. For example, the USAID and other international development agencies sponsor and influence many development communication campaigns in developing countries. In such campaigns, they depend on the local agencies to implement the development communication model to give the best results. Ironically, they generally use multinational agencies to develop and implement their campaigns. Future research would study how the local culture and context are understood and respected in those campaigns.

My conceptual model identifies four moderating variables. One important area for future research is to propose and test other potential moderating variables that can be tested. Other moderating variables may be distinctive to particular applications, such as

health, family issues, gender, or socio-economic applications. Future research should

also address the moderating effect of budget availability. If high budgets are available,

the development campaign may be quite different than campaigns that suffer from severe

budget constraints.

Finally, the advertising and public relations interviewees were quite intrigued by

the model and saw the potential for its application in the advertising for products and

services. That is a new domain for researchers interested in the learning model to explore

and develop.

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