Mother Tongue Instruction (MTI): Empowerment- Involvement- Achievement Theory Amidst Pandemic

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Abstract

This paper seeks to create a theory that highlights the role of Mother Tongue Instruction (MTI) as an effective method towards the **empowerment** of home tutors to increase their **involvement** in the teaching-learning process for the learners to maintain academic **achievement** amidst pandemic. The potential for improved learning outcomes increases when the school curriculum is delivered in a language that pupils are familiar with and in which they can receive support from their parents as home tutors in the absence of face-to-face classes. In order to achieve this goal, the researchers use the deductive axiomatic approach to generate theories, following the steps outlined by Padua (2012). The following five axioms have been developed: (1) Empowerment is interconnected with achievement.; (2) Mother Tongue Instruction (MTI) is a predictor of academic achievement; (3) Involvement is a way to excellence; (4) Parental involvement plays a vital role towards learners' commitment; and (5) Mother Tongue Instruction encourages parents' involvement and commitment and puts them in charge of their children's education especially during pandemic. From these five axioms, 8 propositions were formulated; These are the propositions: (1) Greater Mother Tongue Instruction (MTI) engagement increases academic achievement; (2) Perceived academic achievement motivates parental involvement; (3) MTI should contextualize the needed resources/materials; (4) MTI should innovate learning materials adoptive in this time of pandemic; (5) MTI should enhance activities with a language easy to understand; (6) Mother Tongue Instruction (MTI) should stimulate higher order thinking skills; (7) Mother Tongue Instruction "MTI" should incorporate cultural literacy; and (8) Parents involvement and commitment must be strengthened by MTI in this time of pandemic. With these propositions, the Empowerment-Involvement-Achievement Theory Amidst Pandemic for Mother Tongue Instruction (MTI) in Education was generated.

Keywords: *Deductive axiomatic, (MTI) Mother Tongue Instruction Theory, L1 engagement, L2 development, teaching-learning process, empowerment, involvement, academic achievement, commitment, pandemic*

Introduction

Definition. Mother Tongue Instruction (MTI) is the application of the learner's native language as the medium of instruction in the teaching and learning process. The desire to define the term "mother tongue" is not purely speculative. It arose as a result of our work on linguistic human rights (Skutnabb-Kangas 1984b; Skutnabb-Kangas/Phillipson 1986b; 1987), as cited in the work of Skutnabb-Kangas & Phillipson (2012). Its goal is to begin implementing learner-centered education at the bottom of the educational ladder (Monje, et al. (2021). Mweri's (2020) study argued that, in the same way that there is a human rights-based approach to economic development, it is equally important to recognize the role of language in general, and mother tongue or local languages in particular, in achieving sustainable development goals. His work critically examined the role of one's mother tongue in one's success. Ghandchi (2018) found that in two mother tongue classes in Copenhagen, encounters and discussions about ideological views supporting either of the overall language resources, a form of authority exists and then becomes oriented to in accordance with the antiquity of language policy in the origin countries.

Mother Tongue Instruction (MTI) and Culture. Mother Tongue Instruction enriches one's national and international cultures. Begi's (2014) research emphasized that in order to preserve Kenyan culture, the mother tongue is used as a language of instruction in the early years of school. According to Hariastuti and Budiarto's (2020) research, Using Banyuwangi House is a cultural component of that Using the tribe in Banyuwangi, Indonesia, that includes a variety of mathematical ideas. The presence of math concepts in culture, known as ethnomathematics, can be used to create teaching materials for elementary school mathematics. Aside from the use of cultural components such as traditional houses, the use of language as the language of learning can also act as a road for students to more perfectly understand mathematical concepts that are still complex.

Mazari and Derraz (2016) found that culture is extremely important when teaching or learning a foreign language because words or phrases in that language, such as English, refer to organizational meanings within its own culture, thereby creating a reality and a well-defined contextual relationship that the learner must comprehend. There are at least three key parts to language and culture:
1) Language learning enables students to understand the relationship between language and other cultural trend; 2) Language learning enables comparisons between the foreign and mother tongues, emphasizing both commonalities and differences of the two; and 3) Learning a foreign culture necessitates knowledge of one's own heritage as well as consideration of its linguistic dimensions. Learners see similarities and differences from their own culture as well as the communities where the particular language is spoken. As a result, they will be able to recognize with the perspectives and experiences of native speakers of a language, as well as use this skill to establish a more objective perspective of their own culture and mindset.

Mother Tongue Instruction (L1 Engagement) and the L2 Development. Mother tongue is vital in framing people's thoughts and emotions. Learning to speak in one's mother tongue is critical for a child's overall development. Being fluent in the child's native language, also known as the mother tongue, benefits the child in a variety of ways. It connects him to his culture, promotes cognitive development, and aids in the learning of other languages. A child first understands what is around them through the language in which they hear their mother communicating from before they are born and throughout their lives. Many children in the developing world are learning very little in school, which can be attributed to instruction in a language they do not fully understand. It is a practice that results in limited or non-existent learning and skill acquisition, alienating experiences, and high drop-out and repetition rates. In order to improve educational quality, language policies must take mother-tongue learning into account. Education models that ignore the mother tongue in the early years can be counterproductive, ineffective, and harmful to children's learning. Mother-tongue education, at least in the early years, can help teachers teach

and students learn more effectively (Nishanthi, 2020).

The standardized use of L1 for the benefit of L2 learners is clarified by Mother Tongue Instruction (Yadav, 2014; He, 2012). His research sees L1 as a valuable teaching/learning resource instead of a source of interference, which frees up more pedagogical space and may have positive implications for L2 instruction, specially in homogeneous contexts in which both teachers and learners share the same Mother Tongue as well as Target Language. Thus, Martin (2015) concluded that, despite popular belief, learning in the mother tongue both strengthens English language learning and continues to support the learning of other critical content areas such as mathematics as well as science.

Mother Tongue Instruction (MTI) and Technology. Mother Tongue Instruction leading towards technological integration. The Handbook of Technology as well as Second Language Teaching and Learning includes a complete exploration of the effect of technology on the field of second language learning as disclosed by the study of Chapelle and Sauro (2017) and is divided into three phases: language teaching and learning through technology; the innovation interface; technology for L2 evaluation; and research and development. It investigates how technology can assist in all components of language progress, the emergence of pedagogy at the crossroads of language and technology, technology in language assessment, and main research concerns in the research and development of technologies for language learning. It encompasses all areas of language, including grammar, vocabulary, reading, writing, listening, speaking, pragmatics, and intercultural learning, and also new pedagogical and evaluation approaches and innovative methods of conceiving and conducting research and development.

The Manual of Technology and Second Language Teaching and Learning demonstrates how technology has many and diversified implications for language teachers, learners, materials designers, and researchers. Erixon (2016) characterized how students and teachers in Sweden's seventh to ninth grades perceive and respond to the integration of new digital media in mother tongue education (Swedish).

In one of his studies, Erixon et al. (2012) stated that school topics have unique structures that are critical for how digital media can be integrated. From a knowledge theory standpoint, digital media influence how school subjects can be described. Furthermore, Trecee's (2019) study on the Convolutional Neural Network algorithm classification model to the development of an android-based application that categorizes and acknowledges local veggies was found to be useful as supplemental instructional material for MTB-MLE which can be used for foundational tasks.

Thus, Risadi and Ardiasa (2020) recognized the importance of mother tongue as a language in schools in a multilingual society. When combined with proper material like comics or interactive media, mother tongue can be useful for learning a subject (games in computer).

As an outcome, in their Motivation Exploration-Implementation Theory for Gamification in Education, Cabello et al. (2021) stressed the significance of gamification in the instruction, where motivation, exploration, and implementation are essential aspects in accomplishing a challenging, reframed, and positive learning environment.

Mother Tongue Instruction (MTI) and Parental Involvement. Mother Tongue Instruction encourages parental involvement and puts parents in charge of their children's education. According to the findings of Scherman and Tsebe's (2020) study, parental support is a complex process that requires one to consider the interface of systems surrounding the parent and the child. As a result, the theory of parental support describes how, by combining these principles, parents can support second language development. The findings of this study have practical and policy implications for parental support for the development of English as a First Additional Language (EFAL).

Chung (2012) discovered that parents were determined to help their children learn and used a variety of methods, both direct (teaching) and indirect (providing access to resources, cultural activities and events). Every parent makes time for formal, serious, and regular

(school-like) learning sessions. Their social, cultural, and educational backgrounds all had a significant impact on the assistance they provided. All of them improved their children's motivation and learning outcomes.

The theory of recognition-adaptation-persistence by Alicamen & Abadiano (2020) uncovered parents' resilient mechanisms in the new normal of teaching and an understanding that being a teacher to your child requires parents and/or guardians to recognize their role (awareness and acceptance), to adapt certain initiatives (adaptation), and to persist in implementing the initiatives and measures at home (actions) for the learning continuity to thrive amid the prevailing challenges and other adversities of the pandemic.

The Impact of Mother Tongue Instruction (MTI). The study of Alimi, Tella, Adeyemo, and Oyeweso (2020) in Osun State revealed the impact of Mother Tongue on Primary Pupils' Literacy and Numeracy Skills, concluding that teachers must implement these initiatives to increase pupils' literacy and numerical skills. Significant determinants follow from a simple decision to determine the language of instruction, particularly in the early years of schooling. It means that proper language selection leads to educational success (Perez & Alieto, 2018). The use of one's mother tongue in the classroom in a multilingual context has an impact on how students learn. According to the findings of Dukhan et al. (2016), first-language students took more clear and comprehensive notes and outperformed their second-language peers academically. Similarly, Tadeo and Queroda's (2020) research found a significant relationship between listening writing skills composition learning competencies and students' mother tongue, and that all English skills and knowledge were highly related to students' mother tongue rating. As a result, there is a correlation between students' mother tongue grades and their English abilities.

Furthermore, Tumlos-Castillo and Baylon (2015) discovered that language has an impact on evaluation and comprehension, emphasizing the importance of delivering quality training by ensuring that students comprehend and use dialect wisely in the learning experience.

It is essential to consider that in order to guarantee authentic learning, educators must be skilled in the use of the required teaching medium.

Villaruz and Perez (2020) supported this claim by demonstrating that the medium of teaching, including native language in the language subject, influenced learners' academic performance in Science and Mathematics. Several studies have shown that using the mother tongue as a medium of teaching in mathematics instruction in the Philippines is more effective than using the English language, based on students' success in the mother tongue-based teaching, which was significantly higher than the success of those taught in the English Teaching. (Aliñab, Aguja, & Prudente, 2018; Englis & Boholano, 2021; Espada, 2012; Morales-Obod, et al. 2020; Ricablanca, 2014; Siyang, 2018).

Literature Review

The right to education in one's language or mother tongue is addressed by Mother Tongue Instruction. Ghimire (2012) believes that it is critical to protect children's rights to education in their native languages. Educational objectives cannot be met unless the learning needs of children who speak these heritage languages are properly addressed. The study of Norouzi and Movahedian (2021) emphasizes language rights, which can be split into two approaches are based on acceptance, which prohibits any interruption with the choice of words and its use by government agencies, and an extension-based method, which aims to protect the right for using language in various fields like education, court, public realm, and government bodies. The importance of the mother tongue, and more particularly, mother-tongue schooling, is widely recognized throughout the world. One of the most effective cognitive, social, and communal ways of acting and performing is to use one's mother tongue. Stoop (2017)'s work encouraged and promoted the execution and realization of mother-tongue curriculum across specific education designs in order to promote universal and freedom while also increasing the prevalence of increased educational standards in a multilingual universe.

Mother Tongue Instruction (MTI) reflects higher-order thinking processes.

Some of the researches highlighted success stories of Mother Tongue Instruction. The study of Kioko et al. (2014) revealed various realities surrounding its use of mother tongue education in Africa and the financial advantages of using the mother tongue in media production or financial systems to persuade stakeholders to put money in mother tongue instruction because there are results on such asset Lee (2019) investigated the following topics: Part I, "Family language ideology, practices, and management in interaction with mainstream educational and bilingual curriculum," Part II, "Family language strategy as a joint social venture," and Part III, "The communication patterns among parents and children in their shared language learning processes," all of which are FLP success stories.

Empowerment Theory. According to Perkins & Zimmerman, Rappaport, Zimmerman and Warschausky, empowerment is a value orientation for community work as well as a model provides a framework for comprehending the process and outcomes of attempting to impose influence and control over decisions affecting one's life, organisational effectiveness, and community living standard (1995; 1981; 1998; cited in Zimmerman, 2000). The study by Siswanti and Muafi (2020) examines and tests the effect of employee empowerment on innovative behavior, which is mediated by work motivation, providing theoretical enrichment from the perspective of empowering leadership, particularly at the individual level. Leaders can boost employee creativity by empowering them to do their jobs and creating a work environment in which employees feel psychologically empowered.

However, empowerment is not limited to how leaders and employees adapt to the new normal situation; parents also played an important role in empowering themselves for the sake of their children's education. The study of Karki, Dhonju & Kunwar, (2020) claims that parenting is both an art and a science of nurturing a child that comes very naturally to some, and that the fundamentals of parenting are being tested in today's world of the coronavirus 2019 (COVID-19) pandemic. Positive parenting that includes sensitivity, responsivity, caring, communicating, and empowering children and adolescents would ensure positive developmental outcomes. Positive parenting and parental self-care would serve as a promotion and preventative intervention for child and adolescent mental health, particularly during this crisis.

Involvement Theory. Involvement is the cornerstone of excellence (Astin, 1985). However, in this new era, the meaning of parent involvement has been perceived as shifting from school to home, such as supervising their own children at home. According to the findings of factor analysis, home dialogue, home close monitoring, school interaction, and school participation are the four types of parental support. (Esther, 1995).

The level of involvement of a parent in his or her children's education is referred to as parental involvement. During the Corona virus pandemic, Dini (2021) discovered a positive and significant impact of parental involvement on children's at-home learning interests. Parents' roles in the approach to instruction included providing support, respecting children's work, guiding, supervising, and disciplining. Teaching children at home, motivating them, building positive contact with students and the classroom climate to determine the child's development, and facilitating collaboration with communities and schools are all essential.

Educators work together, pooling their resources and collaborating to ensure learning continuity and student success in the face of a pandemic. Logan, Ogurlu, and Cook (2021) conducted a study to elicit feedback from parents by asking them on how educators will support them in teaching their children at home during COVID-19 school closures. The results of a 122-question online poll revealed that educational leaders could acclimate how they provide formative assessments in terms of innovation, instructions, as well as modes; make additional issues to consider for how family members, students, and educators interact and access equipment; and indicated a range of reactions.

Achievement Theory. Nicholls (2017) revealed an integrative theory of achievement motivation in which achievement behavior is distinguished

from other types of behavior by its purpose, which is the development or demonstration of competence rather than incompetence. The quality or type, as well as the strength, of each individual's states of achievement motivation can vary. One is task-involvement, which promotes continued learning and learning satisfaction by focusing attention on what is accomplished through effort. The argument for task-involvement is consistent with Piagetian theories of cognitive development.

Teacher coaching, on the other hand, has a significant impact on instruction and achievement. According to Kraft, Blazar, and Hogan (2018), teacher mentoring has emerged as a promising approach to traditional professional learning designs, with literacy coaching programs for prekindergarten as well as elementary teachers providing much evidence that have a significant impact on students' academic achievement.

However, achievement cannot be attributed solely to motivation and behavior, teachers, or various development programs; the language of instruction is also important, especially in this pandemic era when parents are all in charge of their children's future. In the midst of a pandemic, learner achievement may be influenced by the language used at home.

A mother tongue-based education improves learning outcomes and second language acquisition in schools, according to numerous studies. According to Awopetu (2016), the influence of mother tongue on children's learning abilities in early childhood classrooms is effective. Based on the experiences of the surveyed teachers in public primary schools in Zone 3, Mauritius, Daby (2015) discovered the effectiveness of the Mother Tongue in supporting meaningful learning and enhancing learning abilities. Brunette et al. (2019) discovered that the US Agency for International Development/School Health and Reading Program (SHRP), a mother tongue reading curriculum that used grouped randomized trials in 12 linguistic groups, had a causal effect on reading outcomes.

SHRP improved literacy achievement in 9 of the 12 languages studied, indicating that these interventions have a high impact potential. Language features such as sophistication were

discovered to be more indicative of such effect. Based on evidence from a natural experiment in Ethiopia, Seid (2016) discovered that teaching in one's native language is important, with the results indicating that mother-tongue instruction improves educational outcomes. As a result, using MTL as a teaching medium is advantageous in the teaching-learning process (Morales-Obod, et al. 2020).

Commitment Theory. Commitment exemplifies one of the ways in which individuals infuse self-motivated behaviors into roles and social structure, thereby linking the self to social structure. Commitment moderates the relationship between student identity and role performance, making the relationship stronger for those who are more committed (Burke & Reitzes, 1991). Girandola (2018) discovered the main effects of commitment on cognition and acts, as well as the issue of the relationship between cognition and action, and concluded that both rationalization and commitment mechanisms provide reproducibility and perseverance over time, as well as the possibility of application to other behaviors. McCormick and Donohue (2019) discovered that socialization experiences and the alignment of organizational mission and values with personal values positively predicted normative commitment.

The findings presented above by different studies or researches are extremely useful in examining the commitment of stakeholders, both internal and external, as well as pupils themselves, to learning continuity amidst this health struggle in order to maintain academic achievement. The effect of teachers' self-efficacy and system quality on teachers' ongoing effort to eLearning throughout the COVID-19, where educators are expected to demonstrate higher engagement through commitment, was investigated by Guoyan, Khaskheli, Raza, Khan, & Hakim, (2021). The level of loyalty in the profession of teaching is notable in both Malaysia and Pakistan.

Issues Confronting Mother Tongue Instruction (MTI). However, there were some issues that teachers encountered when trying to implement mother tongue-based teaching, such as a lack of books published in mother tongue, an

absence of vocabulary, and a lack of teacher-training, as discovered by Lartec et al. (2014) through a phenomenological data analysis and discovered that teacher educators used methods such as target language translation to native language, multilingual teaching, lingua-franca, and educational improvement. As a result, Jaca Jr, Javines Jr, and Vasquez (2018) discovered that telling stories in the native language elicited more student engagement and oral engagement than tales told in English. As a result, they improve their oral communication skills in their mother tongue (Cebuano) by becoming evocative and participatory while listening to the story and data given. Children improve their receptive skill of listening when they focus intently on the elements of the " information and participate actively in answering questions during in the pag-asoy. Clava (2015) also emphasized the use of large books as MTB-MLE teaching materials in Bicol to establish or improve the reading comprehension of Grade 1 students.

A thorough review of books and articles may provide a deep understanding as to why a theory in mother tongue instruction should indeed be construed. Although mother tongue instruction promotes positive impact and reflects higher-order thinking processes on second language learners' development and improves learning outcomes in numeracy and literacy, there are still gaps that need to be addressed, such as a lack of vocabulary and language variety depending on the learners' needs and comprehension level. Another issue which also needs to be tackled throughout this study would be how to support a mother tongue as both a bridge in second language acquisition, how to engage L2 that anchors just on mother tongue teaching L1, as well as how to enhance this native language instruction in a very way that it is adaptive towards the students' learning' needs to maintain higher academic outcomes in literacy and numeracy in this time of pandemic.

In order to address such gap, this paper is trying to construct a theory that will highlight the role of mother tongue instruction in education, in maintaining that positive impact, ensure a continued parental **empowerment** which leads to the **involvement** of both teachers and home tutors in collaboration to help the learner achieve his/her goal of academic **achievement**, bound by commitment, ensuring learning continuity amidst this time of pandemic. As a result, the **Empowerment-Involvement-Achievement Theory** in term "mother tongue instruction" is used in this context.

Statement of the Problem

This paper wants to establish and want to propose a concept in mother tongue instruction in education, which is the **Empowerment-Involvement-Achievement Theory**, with goals to recognize Mother Tongue Instruction (MTI) as an effective language of instruction "native language" towards the **empowerment** of learners and stakeholders particularly home tutors to increase their **involvement** in the teaching-learning process for the learners to maintain academic **achievement** amidst pandemic.

Research Design and Framework

The deductive method of grounded theory development is used in this study. According to Boyatzis, Fereday & Muir-Cochrane and Hyde, deductive qualitative research differs from other qualitative approaches in that it takes as its starting point theoretical propositions derived from a review of the literature and applies these to data collection and analysis (1998; 2006; 2000; cited in Pearse, 2019). The procedure includes submerging oneself in the information, reading and trying to digest it in effort to make sense of the entire entity and comprehend what really is progressing on (Azungah, 2018).

Bryman (2016) discusses additional strategies for improving the quality and rigor of qualitative research. A need for axiomatic devices in order to sensibly fully comprehend reality has existed as of Ancient times and building axioms is indeed a general necessity that allows knowledge to be discovered, not just in the Mathematical approach. As a result, in order to explore truth through the lens of such innovative axioms, we must undergo an axiomatic shift in our thinking (Crumpei, Gavrilut, & Mastorakis, 2017). According to Hintikka (2011), axiomatization is not usually epistemologically motivated, but it is related to the concept of explanation. The ability of a deductive framework to broaden the foundational laws

pertaining to units and greater blends of these units determines its power. The postulates which allow this application of the vital axioms are known as composition rules or laws (Krupp,1968). The more sophisticated may add that those proofs are based on true axioms and that our inference rules preserve truth (Maddy, 1988) in order for these general axioms to be conceptualized (Bond, et al., 2004).

According to Cozby, propositions are statements that express the relationship of two or more concepts (2009; cited in Udo-Akang, 2012). The propositions are put to the test using the appropriate methods. A proposition's truth must be determined not only by its entailment relationship with other propositions, but also by what those other propositions are like, whether or not they are independently acceptable (Woozley, 2020).

The following propositions prove to be outcomes satisfying various axioms Aziz & Lee (2019), whereas Roggema (2017) stated that it can be concluded on the basis of the studio process and the improvements of the propositions, thus, Ukavwe (2018) describes explanation as a logically valid deductive argument, how the phenomenon to be explained follows logically from initial conditions and general laws.

The development of the Empowerment-Involvement-Achievement Theory in this study is based upon that deductive axiomatic methodology highlighted below, which follows the stages in theory development suited from Padua (2012).
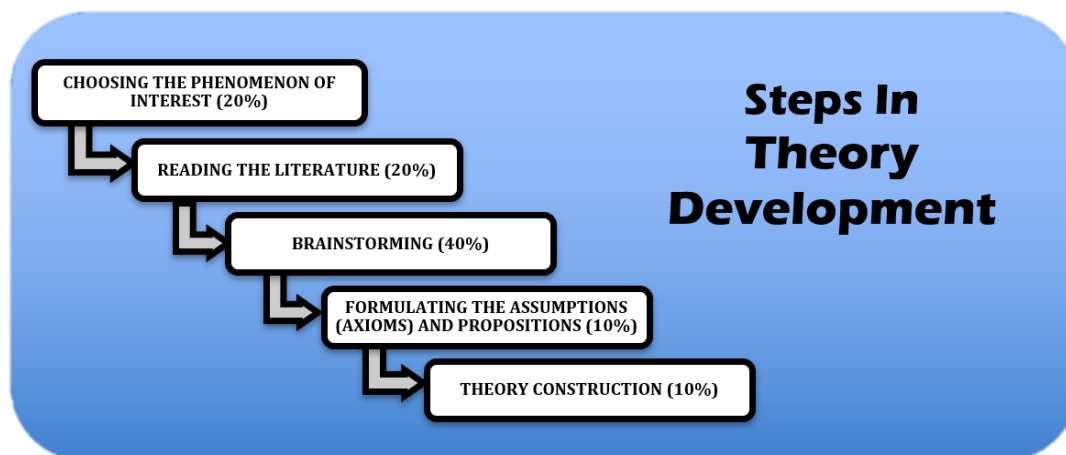

Figure 1. Deductive Axiomatic Method of Grounded Theory Development
(Suited from Padua, 2012)

Choosing the Phenomenon of Interest. First and foremost, there is an ongoing problem for those already working inside the perceiving field in terms of the terminology researchers use to promote understanding of interest Becker (2019), as well as the use of whatever data is available (Ylikoski, 2019). As a result, a theory will be developed using the deductive axiomatic method.

Reading the Literature. Second, Corbin and Strauss (2014) cited some methods for developing a theory which allow researchers to examine, interpret, and contribute to making sense of their data, and eventually build theory from it, as well as Garrard (2020) provides a system for organizing and conducting a literature review. As a result, it is necessary to consult other existing databases and resources in order to develop new theory.

Brainstorming. Brainstorming is the third step in this deductive axiomatic methodology to theory building and is probably the most well-known of a creative problem-solving techniques (Rawlinson, 2017). Knowledge is still regarded as a source of power, and its outward manifestations allows others to wield it (Weichbroth, 2016). As a result, the brainstorming theory was born. Several brainstorming techniques are proposed to aid and

encourage creativity all through generating ideas (Maaravi et al., 2020), and Litchfield et al. (2011) demonstrated that when goal commitment is high, a particular, tough novelty goal, whether presented alone or in tandem with brainstorming regulations, enhances novelty and creative thinking in individuals' generating ideas compared to brainstorming guidelines alone; thus, Ruiter & Crutzen, (2020) emphasized that emphasis is placed on Indeed, brainstormed ideas has been considered as an effective method for creativity in the process of innovation (Kazakci et al., 2015).

Formulation of Axioms and Propositions. When brainstorming was done, this theory development proceeds with the formulation of a number of axioms regarding the interaction between Mother Tongue Instruction (MTI) as an effective language of instruction "native language" towards the **empowerment** of learners and stakeholders particularly home tutors to increase their **involvement** in the teaching-learning process for the learners to maintain academic **achievement** amidst pandemic.

Axiomatic truth theories, like other formal deductive systems, can be presented as frameworks requiring few resources, specifically a strong metalanguage and metatheory. Formal work on axiomatic truth theories has aided in the illumination of semantic truth theories (Halbach, 2014). Deductive reasoning is a type of reasoning in which the truth of the input propositions (the premises) is logically guaranteed in order to ensure the truth of the output proposition. The premises could be propositions in which the reasoner believes or assumptions in which the reasoner is interested (Schechter, 2013). Such axioms and propositions seem to be crucial in the development of a theory (Cabello, et al., 2021; Torres, 2020).

Theory Construction. According to Gabriel, Meyer and Germano, a theory refers to a set of concepts, ideas, philosophies, or strategies used to clarify a broad range of observable reality, and it is a general statement of abstract concepts or ideas which affirms, helps explain, or predicts connections or relations among both between

many phenomena, within in the limits of critical bounding assumptions that perhaps the theory explicitly makes (2008; cited inTorres, 2020). Theory development is essential because it offers an analytical framework, enables the field's efficient development, and is required for the field's practical application to pragmatic actual problems. To really be good theory, a theory should adhere to the qualities (criteria) for 'good' theory, which include distinctiveness, parsimony, preservation, generalisation, fecundity, internal reliability, evidence-based volatility, and abstraction (Gay & Weaver, 2011). This is the final step in theory development based on the Deductive Axiomatic Method from Padua, 2012.

Results and Discussions

Phenomenon
The **Mother Tongue Instruction (MTI)** phenomenon is the subject of this paper. Beginning with K–12 programs'adoption, mother tongue instruction has been widely used as a teaching medium. Scholars and researchers published variety of articles recognizing the role of Mother Tongue Instruction (MTI) as an effective language of instruction "native language" in the primary levels of education towards the **empowerment** of learners and stakeholders particularly parents who act as home tutors to increase their **involvement** in the teaching-learning process for the learners to maintain academic **achievement**, bound by commitment, ensuring learning continuity amidst this time of pandemic. Thus, the **Empowerment-Involvement-Achievement** Theory in Mother Tongue Instruction is developed in this paper.

Axioms
Following a review of all relevant studies and literature, the researcher develops some assertions that are acknowledged, founded, and proven to really be self-evidently true. The foregoing are indeed the axioms: (1) Empowerment is interconnected with achievement.; (2) Mother Tongue Instruction (MTI) is a predictor of academic achievement; (3) Involvement is a way to excellence; (4) Parental involvement plays a vital role towards learners' commitment; and (5) Mother Tongue Instruction encourages parents' involvement and

commitment and puts them in charge of their children's education especially during pandemic.

Axiom 1   Empowerment is interconnected with achievement.

Language empowerment is essential for success. MTB-MLE (mother tongue-based multi - lingual teaching) students scored higher in their second language as well. It means they are empowered to perform better because they are familiar with the language of instruction (their "mother tongue"). Erkan (2018) discovered the general qualities of the goals in Hong Kong and Shanghai-China, South Korea, Singapore, and Turkey's mother tongue curricula in terms of higher-order thought patterns as measured by PISA tests. Mother-tongue school curriculum have been acquired from the official websites of the Ministries of National Education in the countries investigated. The statistical analyses were performed in accordance with the content analysis and compared to the PISA 2015 levels of high-order thinking processes. Study's findings revealed that the objectives of these countries' mother tongues were similar because they reflected higher-order thought processes.

MTI (Mother Tongue Instruction) is an important factor in second language acquisition. The impact will be greater if students in (Pre)-Nursery and Primary education have been allowed to learn in their native languages as well as in aspects that are accustomed to them (Chiatoh & Akumbu, 2014). Similarly, Malik and Sikdar (2019) stated that mother language is a reference for improving l2 acquisition proficiencies, and Tefeh (2019) added that if the native language wasn't used in the English language classroom to instruct, explain, and socialize, among other things, a significant gap may exist because Al Asmari (2014) attested that MT improves students' proficiency.

Second language (L2) teachers primarily used L1 continue providing input, teach new words, illustrate grammar, develop relationships, handle the class, offer additional personal assistance to students, and to save time in long and complex job interpretations (Phindane, 2020). As a result, Calis and Dikilitas (2012) concluded that translation tasks could help learners improve both their receptive and productive skills.

Apart from that, Mother Tongue (MT) serves a number of functions in L2 acquisition, including structural support, social interaction, and cognitive regulation. Through scaffolded help, MT fostered vocabulary acquisition in L2, generated intersubjectivity by encouraging creativity and decreasing anxiousness, and aided in internalizing L2 through cognitive self-regulation (Syed, H., Bhutto, F., & Syed, T., 2020). As a result, Tiwari's (2020) work proposed a solution to dealing with students who have poor English proficiency through the prudent utilization L1, which would be an improved way to increase pupils' participation which is also supported by (S Almohaimeed & M Almurshed, 2018; and Timor, 2012) who found out that Elementary and intermediate learners generally view the prudent use of their L1 favorably, and Kayaolu (2012) would demonstrate that both experienced and new teachers have favorable feelings toward the exploitation of L1 in the sense that it improves learning.

Alshammari (2011) supported that the use of Arabic (L1) was for clarification purposes and that a balanced and judicious use of L1 in the EFL classroom by both teachers and students can be useful in the language learning process and may even be essential to increase learners' comprehension.

Moreover, Erdemir & Seildhofer (2013) suggested that the use of own 248 languages and translation is being reconsidered in English language teaching. Thus, according to Cummins, another way in acquiring the English language (L2) was the translanguaging which plays a very important role by utilizing the students' learning' "similar underlying competency" (1991; cited in Ali, 2021).

Hence,   **Empowerment   is interconnected with achievement**.

Axiom 2 Mother Tongue Instruction (MTI) is a predictor of academic achievement.

Learners' academic progress is dependent on Mother Tongue Instruction. Several studies conducted by scholars all over the world

have proven this. Perez and Alieto (2018) discovered there is a very significantly positive correlation among both respondents' mathematics performance and proficiency in their mother tongue. The various Mother Tongue language lessons allow students to start where they are, and speaking in one's native tongue is extremely important, especially in developing one's own confidence.

Consequently, According to Bolado and Palestina's (2021) research, the comprehension level of students whenever the content is articulated in Mother Tongue is positively related to performance in terms of either the PHIL-IRI, Quarterly evaluation rating, and grades on Progress Reports. Since they are written and introduced in their native language, learners understand literary genres at a very satisfactory level, and they have achieved a very satisfactory achievement in aspects of poetry, short stories, brainteasers, allegories, folk tales, and a satisfactory level of ability to comprehend in fables.

It is undeniable that when children understand the language of instruction (L1), they learn better since it is simpler for both students and teachers to comprehend. As a result, Effiong (2013) seeks to raise awareness about the critical role mother tongue plays in a child's early education, and deciding what language will be used to teach the students is among the most main considerations in childhood education.

Children who are learning in their native language understand the curriculum better. According to Siyang (2018), using one's native language as a language of instruction is much more effective than using English. Furthermore, students who were taught in their native language learned more than those who were taught in English. Similarly, Ozfidan (2017) asserted that everybody has the right to receive an education in their native language. For a student to have equal access to education and reap the same benefits as others, mother tongue education is required, and it plays a major role in ensuring school attendance, enhancing quality of education, as well as integrating children into society.

As a result, Chisunum and Ejie (2014) concluded that mother tongue should be used as a complementary medium of instruction. Indeed, according to Bahrami et al. (2020), when it comes to the repercussions of mother tongue instruction as a multicultural category, practitioners and policymakers must consider mother tongue teaching or instruction in mother tongue as a requirement and plan to implement it. Ali (2018) proposed integrating mother tongue instruction without ignoring mainline languages and wished that indigenous languages would be given an opportunity to flourish, that would embolden indigenous speaking people. Matter of fact, Choudhury (2020) highlights the importance of mother tongue instruction and multilingual education for not only the revitalization of these minority languages, but also for the holistic academic development of indigenous children.

Therefore, it is concluded that **Mother Tongue Instruction MTI is a predictor of academic achievement.**

Axiom 3   Involvement is a way to excellence.

According to Sario, Guiab, and Palting (2014), teachers speaking parents' native language enhances parental cooperation and participation for their students' education. This, as well as the encouragement of children's sense of identity in the school environment through the use of their native language and culture. During the pandemic, the students remain at home with their parents acting as home tutors. When tutoring mathematical problem solving, using the learner's mother tongue as a medium of instruction helps to improve knowledge ability to comprehend and problem-solving techniques. Binji, Sokoto, and Dankal (2020) discovered Hausa as a medium of teaching to evaluate the effects of environmental language (mother tongue) in learners' performance in mathematics among JSS, as a solution to their problem on this subject, which is mostly failed by students in both internal and external examinations in Nigeria, demonstrating a significant difference in students' performance.

The study of Ahmed, Amin, Nawaz, and Javed (2018)'s mother tongue for Qur'anic verses facilitates the educational process. The Qur'anic point of view on first language as the medium of teaching is an in-depth analysis of the text which employs Islamic critical theory and a hermeneutic

strategy for dealing with the text on two different levels: contextual and grammatical. Based on the analysis of chosen verses, it advocates for the use of first language (mother tongue) as both a medium of instruction in schools to disseminate knowledge among the general public, while also encouraging the learning of other languages. Similarly, Ishida, Nakamuro, and Takenaka (2016) discovered that the Japanese spoken in the home is an important predictor of the native-immigrant achievement gap in mathematics and scientific literacy exam results. They emphasized the importance of vernacular being used at home, and their evidence based findings show that possibilities for immigrant parents and students to learn Japanese should be expanded. As a result, local language teaching in public schools should be prioritized in order to accomplish prolonged literacy with all children (Carter, Sabates, Rose & Akyeampong, 2020).

Children who are learning in one's mother tongue enjoy learning more and learn quickly because they feel more at ease in their surroundings. Cahapay's (2020) research discovered a relationship between learners' attitudes against their mother tongue and educational achievement. The present study weaves scientific proof that learner attitudes against mother tongue are associated with academic performance in the context of a monolingual climate among the large body of diverse research in the area of language instruction. The effectiveness of the MT in supporting meaningful learning and enhancing educational abilities has been established in Daby's (2015) work written from the perspective of the surveyed teachers. Similarly, better results in external tests for bilingual schools show that students have a higher level of performance in Language and Mathematics than pupils trained in monolingual school systems (Sotoca & Muoz, 2015).

Therefore, **involvement is a way to excellence.**

Axiom 4   Parental involvement plays a vital role towards learners' commitment

Lawrence and Fakuade (2021) concluded that parental support and learning involvement

did play a positive and significant role in teenage learners' commitment to digital training during in the COVID-19 lockdown in Nigeria. According to the findings of Bahrami, Ghaderi, and Talebi (2020), the variety of researchers had a favorable perception of cultural diversity as well as assumed that minorities' rights and physical characteristics must be taken account. It has the potential to strengthen national solidarity in terms of mother tongue instruction. Teachers, students, and parents were enthusiastic about it, and teachers should be specially trained to teach in multicultural education centers, which enhances learners' social and psychological situations, educational achievement, ego, learning, and writing, and facilitates learning second and third language skills.

Abdellah and Omar (2020) discovered that one of the cultural influences on Academic Written Expression is the learning background embedded in the students' native culture, from the perspectives of both students and teachers. Chen (2019) also suggested that intercultural education be integrated to improve students' sensitivity to cross-cultural differences and their ability to deal with cross-cultural differences. Bal and Mete (2019) concluded that the mother language education lesson can be linked to the learning outcomes of cultural literacy skills and basic language skills. In other words, **parental involvement plays a vital role towards learners' commitment.**

Axiom 5 Mother Tongue Instruction encourages parents' involvement and commitment and puts them in charge of their children's education especially during pandemic.

Vygotsky proposed that interactions with others within the zone of proximal development resulted in the internalization of cognitive processes that were initially achieved in the cultural setting (Vygotsky, 1978). As a consequence, parent-child interplay is essential for the development of initial skills in reading. Cheung, Dulay, and McBride (2020) discovered that parents' education was a direct predictor of their children's numeracy skills, whereas their computation fluency had both directly and indirectly links with outcomes for children. As a

result, assisting parents in creating a mathematical ability domestic environment is crucial. Nguyen (2020) went on to say that the challenges of remote learning, which was used to replace contact learning due to the COVID-19 disease outbreak, were issues for parents to consider, such as how to balance their responsibilities and motivate their children to continue learning. Similarly, Ocampo, Bennouna, Seff, Wessells, Robinson, Allaf, and Stark (2020) discovered that, despite the challenges associated with their children's newcomer status, parents provided educational support to their children by engaging with the school and with their children's home learning, and they offered suggestions on how schools and organizations can strengthen parents' ability to support their children's education.

Thus, Simweleba and Serpell (2020) concluded that interventions that provide parents with knowledge and skills to assist them in becoming more involved in their children's schoolwork can be beneficial in enhancing learning outcomes, whereas Sullivan and Sjölander (2020) argued that while mother tongue tuition is a free choice, it's doesn't associate to parental engagement and involvement throughout children's learning in the absence of teachers working or parental involvement. Finally, the foundations of family–school connections are language, heritage, and authority. Fostering family–school–community collaboration does not have a one-size-fits-all solution. Our comprehension of the circumstances within which we come to recognize our utmost opportunities helps promote the above connectedness (Nyarigoti & Ambiyo, 2014).Therefore, **Mother Tongue Instruction encourages parental involvement and puts parents in charge of their children's education especially during pandemic**.

Propositions

The researcher developed eight propositions as a result of the formulation of the five axioms. These are the propositions: (1) Greater Mother Tongue Instruction (MTI) engagement increases academic achievement; (2) Perceived academic achievement motivates parental involvement; (3) MTI should

contextualize the needed resources/materials; (4) MTI should innovate learning materials adoptive in this time of pandemic; (5) MTI should enhance activities with a language easy to understand; (6) Mother Tongue Instruction (MTI) should stimulate higher order thinking skills; (7) Mother Tongue Instruction "MTI" should incorporate cultural literacy; and (8) Parents involvement and commitment must be strengthened by MTI in this time of pandemic.

Proposition 1 Greater Mother Tongue Instruction (MTI) engagement increases academic achievement.

MTB-MLE (mother tongue-based multi - lingual education) students thrive in their second or foreign language as well (Axiom 1). Students will benefit from using their first language in schools because it allows them to transfer concepts from their mother tongue to the different language (Madriñan, 2014). It is undeniable that when children understand the language of instruction (L1), they learn better because it is easier for both students and teachers to understand (Axiom 2). L1 engagement in MTI is critical not only for improving learners' performance, but also for improving L2 acquisition. As a result, this study suggests that **Greater Mother Tongue Instruction (MTI) engagement increases academic achievement.**

Proposition 2 Perceived academic achievement motivates parental involvement.

Mother Tongue Instruction is a significant factor in second language acquisition (Axiom 1). In other words, L2 acquisition is dependent upon Mother Tongue Instruction (MTI). Bringing together language theory and research research results in literacy instruction, Mizza (2014) advocated for a mother tongue-oriented strategy to reading and writing acquisition learning environments, claiming that sufficient pedagogical assistance in the pupil's first language (L1) is crucial during the early reading acquisition process. Numerous studies have found that using a child's mother tongue helps them achieve academic success (Axiom 3). Makulloluwa (2013) discovered that teachers, too, supported its use of L1 because they

believed it aided language acquisition by making input more understandable. Mother tongue, according to Malik and Sikdar (2019), act as a reference for constructing second language mastery (Axiom 1). According to one of the study's findings, even mothers truly think that their kids can learn English (L2) and Arabic (L1) quickly and easily, as well as speak English (L2) with such a native accent (Al-Jarf, 2020). As a result, this article suggests that **parental involvement is motivated by perceived student achievement**.

Proposition 3 MTI should contextualize the needed teaching-learning resources/materials.

Contextualization is critical to the instruction. Balacano (2020) found that when contrasted to Social Group A, with use of mother tongue in the educational story "Juan Tama" has seemed to have effected the academic ability level of Social Group B, illustrating that pupils develop literary appreciation, literacy, cognitive abilities, and master types of content more effortlessly when taught in a common language. Teachers who used Juan Tama storybooks to teach in their native language thought the medium was effective. Their recommendations included: expanding the dissemination of information on the importance of mother tongue-based teaching; recognizing mother tongue acquisition as the first priority in judging children's accomplishment; coaching teachers to create storybooks; and providing instructional materials as well as references in MTB-MLE.

Proposition 4 MTI should innovate learning materials adoptive in this time of pandemic.

In this time of pandemic, улдаева (2020) discussed the development of science and distance learning in education as a result of the pandemic, as well as the creation and benefits of multimedia programs in distance learning of the mother tongue. Masharipovna, (2021) revealed the use of folklore in native language lessons. Makoe and Shandu (2018) developed the VocUp vocabulary acquisition mobile app, which explains its architectural style, user experience, and characteristics and advocates for context - dependent conscious and learning-driven app

initiatives to enhance learning in a language apart from their mother tongue. Pettersson and Hjelm's (2020) study discussed a current research and development project on distant mother tongue instruction in Sweden (2019-2022). The Department of Education, Ume University, and the Competence Centre for Multilingualism are working together on the endeavor. The characteristic expands on the project's first phase's needs and challenges for practice and research, including (1) strategies for systematically escalating students' digital competence, (2) distant didactics for interactive and engaging learning, and (3) formation and methodologies for more engaged teaching, especially in younger age group. Michailidi et al. (2019) used a learning management system based on the WordPress platform to start an online Greek instructional platform for primary school kids who speak Russian as the first language.

Proposition 5 MTI should enhance activities with a language easy to understand.

For learners to feel at ease, mother tongue should encourage multilingual approaches to teaching and learning that enhances activities with a language easy to understand. Multilingual classrooms are becoming more common around the world as migration increases, because empowerment is interconnected with achievement (Axiom 1). Because of the language of instruction that students use at home, Mother Tongue Instruction MTI has been shown to predict student achievement (Axiom 2). As a result, UNESCO's International Mother Language Day encourages policymakers, educationalists and teaching staff, parents and friends, and pupils to increase their dedication to multilingualism and incorporation in education in order to pursue COVID-19 education healing, especially when home lecturers are in command of their children's future. The activities in the modules are also published in the language or mother tongue of the home tutors. As a result, higher-order cognitive processes were developed (Axiom 3). To that end, the theme of the 2021 Worldwide Mother Language Day, "Fostering multilingualism for inclusion in education and society," acknowledges the strength of languages and language variety in progressing inclusion, as

does the SDGs' emphasis on leaving anyone behind (UNESCO, 2021).

Proposition 6 Mother Tongue Instruction (MTI) should stimulate higher order thinking skills.

To stimulate higher level thinking skills such as synthesis, analyzing, rationalization, comprehending, application, and assessment, children must be taught to think critically and creatively. Thus, they need to be trained to think philosophically as well like encouraging them to ask questions and perhaps ask the implications on certain judgments in line with the current contexts. Therefore, involvement in mother tongue instruction (MTI) is a way to excellence (Axiom 3).

Proposition 7 Mother Tongue Instruction "MTI" should incorporate cultural literacy.

To incorporate cultural literacy into the classroom, teachers must express interest in their students' ethnic backgrounds, shift the role of a teacher from instructor to facilitator, maintain a strict level of sensitivity to language concerns, and set high expectations for student performance. According to Sakati (2016), mother tongue teaching is beneficial to both parents and teachers, especially in terms of cultural and heritage preservation and improved teaching practices. A person's mother tongue, according to Ozfidan (2017), is an intrinsic part of his or her society and Begi (2014) used it to teach indigenous education to children in order to transmit and preserve culture from generation to generation and to ensure a smooth transition from home to school. In other words, parental involvement plays a vital role towards learners' commitment on his culture (Axiom 4).

Proposition 8 Parents involvement and commitment must be strengthened by MTI in this time

of pandemic.

Parental involvement and commitment can strengthen the bond of teacher-home tutor relationship in teaching children. Also, by having more contact with parents, teachers will have enough knowledge about pupils' needs and family background, which is information they can apply toward better meeting those needs. There are a lot of ways in order to strengthen parents' collaboration and communication since they are in-charged on their children's education in this pandemic. For instance, Hubag et al. (2021) discovered that the Project "Parents Facilitates Reading at Home" (PFRATH) was beneficial in enhancing the reading abilities of Grade One pupils in the Santa Cruz South District in Mother Tongue-Based Multilingual Education at Tuban Elementary School (MTB-MLE). To that end, as proposed by the OECD (2021), urgent government measures must be implemented to make sure that children have access to healthy food, are protected from child maltreatment, retain access to child overall health services, and can explore the internet safely. Policies must also encourage parental employment, which is critical in combating child poverty. Mother Tongue Instruction encourages parental involvement and commitment and puts parents in charge of their children's education especially during pandemic (Axiom 5). Indeed, Taracena (2020) demonstrated that by enhancing their children's experiences and learning, parents can influence their children's achievements.

It has been a problem that not all parents can monitor their children's progress, and some are illiterate and do not know how to guide their children. This is a more common occurrence in rural or remote areas. While some people believe that parents' involvement in their kid's academic success is important, this is not the case in Mother Tongue Instruction (MTI). This serves as a predictor of learners' academic achievement (Axiom 2) and parents' involvement is a way to excellence (Axiom 3) and plays a vital role towards learners' commitment (Axiom 4). Moreover, Mother Tongue Instruction (MTI) is a predictor of academic achievement (Axiom 2), hence; parents' involvement and commitment must be strengthened by MTI in this time of pandemic.
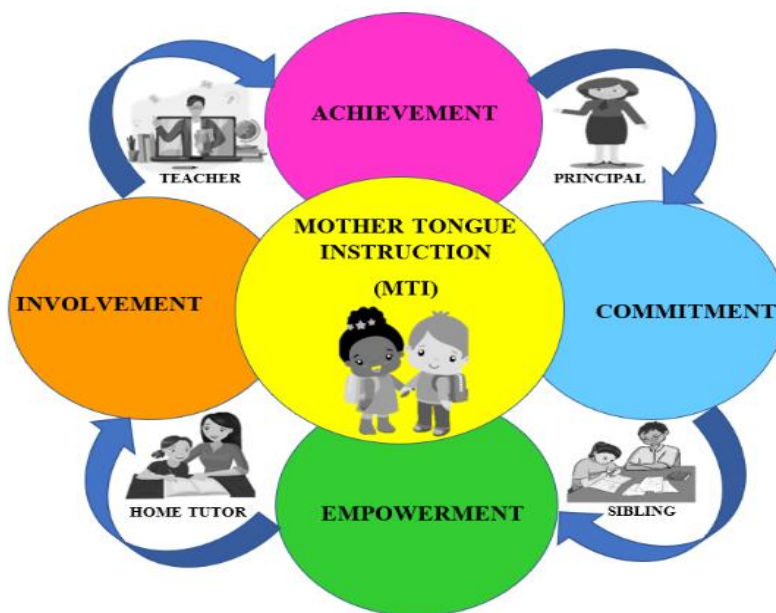
THEORY

Figure 2. Mother Tongue Instruction:

*Empowerment- Involvement
Achievement Theory*

Mother Tongue Instruction (MTI) facilitates **empowerment** among learners and stakeholders especially parents in order to increase their **involvement** in parent-teacher collaboration in guiding the learners in order to maintain academic **achievement** ensuring learning continuity amidst this time of pandemic.

Thus, MTI (1) Empowerment is interconnected with achievement.; (2) Mother Tongue Instruction (MTI) is a predictor of academic achievement; (3) Involvement is a way to excellence; (4) Parental involvement plays a vital role towards learners' commitment; and (5) Mother Tongue Instruction encourages parents' involvement and commitment and puts them in charge of their children's education especially during pandemic. Parents' empowerment and collaborative involvement and learners' academic achievement coupled with commitment are the core elements in Mother Tongue Instruction MTI to ensure collaborative contextualized instructional delivery and materials, easy to understand and adoptive in this time of pandemic. As a result, this theory is

created and will be known as the **Empowerment-Involvement-Achievement Theory**.

Theory Verification as a Future Direction

The following tools and processes will be used as part of general procedure for verifying the

Empowerment-Involvement-Achievement Theory in Mother Tongue Instruction (MTI) in Education: questionnaire survey (Propositions 1-8), interview, and focus group interview (all propositions). Pupils, educators, home mentors, and managers from elementary schools in primary grade levels in the country in which Mother Tongue Instruction (MTI) is used as the medium of communication in K–12 programs would be the informants for theory verification. Data will be collected using validated instruments such as a survey questionnaire and interview guide questions. The collected data will be analyzed using appropriate statistical software. Bryman and Bell (2007)'s ten ethical consideration concepts will also be used. The results and findings for each proposition will be discussed in the following chapter.

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