# **Master Thesis**

The 21<sup>st</sup> Century Learning Environment – disparities, challenges and prospects



Master Thesis to the Department of Philosophy and Learning at Aalborg University, Copenhagen in fulfilment of a MA Learning and Innovative Change Degree

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# Appreciation

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# Wise Saying

"If we teach today's students as we taught yesterday's, we rob them of tomorrow" John Dewey

# Abstract

Formålet med denne afhandling er at undersøge hvordan "Inquiry" (Dewey, 1938, p. 8) kan bruges som et redskab til at undersøge undervisningsfremgangsmåder og læringsmiljøer med udgangspunkt i John Dewey og Gert J.J. Biestas teoretiske synspunkter. Vi har taget udgangspunkt i to læringsmiljøer i henholdsvis Danmark og Ghana, hvor vi har indsamlet data fra fjerde klasser på Kildeskolen i Valby, Danmark og Bagabaga Annex A i Sagnarigu, som er en forstad til Tamale, Nordghana.

Dette speciale er blevet inspireret af "World Bank Human Development Report i 2018 med erklæringen om global læringskrise. Derudover er specialet motiveret af FN's Verdensmål for bæredygtig udvikling. Vores fokus er på mål nummer 4, som omhandler Kvalitetsuddannelse for alle.

Undersøgelser består af empiriske cases i både Ghana og Danmark for at kunne undersøge uddannelsesmiljøer i et Uland og et Iland. I dette speciale anvender vi den kvalitative undersøgelses tilgang, hvor vi bl.a. har taget brug af observationsstudie i begge cases samt kvalitative semistrukturerede interviews med lærere og elever. Lærernes udsagn og vores observationsnoter danner udgangspunkt for analysen, mens Deweys inquiry og pragmatiske tilgange danner grundlag for det videnskabelige refleksioner over den empiriske data.

I forhold til den teoretiske forståelsesramme har vi draget nytte af vigtige begreber af Dewey, hvilket præsenteres under overskrifterne; traditionel og progressiv uddannelse. Ifølge Dewey (1938) så bliver begrebet traditionel uddannelse opsummeret som den proces, der pålægges ovenfra og ikke i synk med elevernes verden. Derudover hævder Dewey, at progressiv uddannelse er identificeret gennem demokratiske tilbud, hvor frihed og deltagelse er centrale elementer. Progressiv uddannelse fokuserer også på metoder og praksisser, fordrer divergerende synspunkter baseret på gensidig respekt.

I analysen af de to empiriske cases benytter vi os ligeledes af Biestas kritisk teoretiske perspektiv vedrørende læring og undervisning i uddannelsesinstitutioner. Desuden mener Biesta, at der er

risici involveret i begrebet uddannelse. Biesta foreslår, at undervisere bør anerkende og forsøge at forstå disse risici, da de er uddannelsesmæssige betydningsfulde.

Undersøgelsen har vist, at Kildeskolen i Danmark er kendetegnet ved aktiv deltagelse af både lærer og elever baseret på demokratiske spilleregler. Læringsrummet er dialogbaseret med fokus på elevernes aktiv deltagelse, hvor læreren er tilgængelig og støtter op om elevernes læring. Der er gensidige anerkendelse mellem lærer og elev. Empirien viser, at det ghanesiske læringsrum er lærerstyret, hvor der primært er envejskommunikation. Eleverne bliver undervist i engelsk, et fremmedsprog som de ikke mestrer og dermed kan de ikke deltage aktivt i undervisningen. Observationer viser at børnene føler sig lidt bange for læreren fordi de kan risikere at blive slået af lærerne når de ikke adlyder hvad de voksne siger. Mange af eleverne kan ikke skrive og læse svarende til deres klasseniveauer, og ligger dermed inden for kategori af eleverne som ikke opnår standard skrive og læsefærdigheder (WDR 2018). Det er mest læreren der fører samtalen og eleverne er passive deltagere.

Vi var interesseret i, via "inquiry" at gå ind i undersøgelsen med et "åbent" sind til værks, men at denne tilgang alligevel viste en forventelig opdeling mellem de cases. Denne afhandling konkluderer på den baggrund, at læringsmiljøerne er præget af forskellige faktorer som fremmer læring; organisk kommunikation, interaktion, frihed, ligeværdighed, respekt, forældrenes aktiv deltagelse i børnenes læring og anerkendelse frihed. Desuden er materialitet en vigtig faktorer uddannelses myndigheder bør reflektere over.

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# Abbreviation

EGRA	Early Grade Reading Assessments
ESP	Ghana Strategic Plan
GES	Ghana Education Service
ICT	Information and Communication Technology
LRC	Learning Resource Center
MGDs	Millennium Development Goals
MPL	Minimum Proficiency Levels
OECD	Organisation for Economic Co-operation and Development
PE	Physical Education
PISA	Programme for International Student Assessment
PTA	Parent – Teacher Association
QUAL	Qualification
SDGs	Sustainable Development Goals
TLMs	Teaching and Learning Materials
TTCs	Teacher Training Colleges
UCs	University Colleges
UN	United Nations
UIS	UNESCO Institute for Statistiks
UNESCO	United Nations Educational, Scientific and Cultural Organization
WBHCI	World Bank Human Capital Index
WDR	World Development Report

# Chapter 1.0

#### 1.1 Introduction

This thesis is a collaborative enterprise by two students with shared interests in the empirical sites and the thematic focus. The authors of this thesis both have Ghanaian roots and have lived in Denmark for the last 15 years. The thesis applies a pragmatic inquiry (Dewey, 1938, p. 9) approach. It investigates the teaching and learning approaches as well as the learning environmental realities through narratives from teachers and pupils.

The idea of the thesis was motivated by the World Bank's 2018 Human Development Report (2018). The Report raised declared a global learning crisis and indicated that many children around the world fail to meet their learning needs (WDR 2018). The researchers selected the empirical cases in Ghana and Denmark to be able to assess global educational situations from the perspective of a developed and developing country settings such as Ghana and Denmark. Each of these cases represents a defined overall categorization and thereby has the possibility of being representative of learning challenges in a wide range of countries.

Education is seen as the way by which people around the world can increase their quality of life and have been a central global target individually and at national levels. Education was one of the Millennium Development Goals (MDGs) from 2000 - 2015. After the expiry of the MDGs, Education is again one of the Sustainable Development Goals (SDGs) (2015 - 2030). The SDGs are also called Agenda 2030 and agreed by members of the United Nations. The 2030 Agenda for sustainable development identifies global priorities and shared commitment to act upon ending inequality. These goals are defined by global actors to set an agenda to end poverty, protect the planet and to ensure peace and prosperity for people now and into the future (Sustainable Development Goals Platform, 2015). Nelson Mandela emphasized the importance of education through the statement that; *"Education is the most powerful weapon we can use to change the world"* Nelson Mandela, July 16, 2003). Even though education has been a global policy priority, many places around the world are faced with educational challenges where many children do not have access to education and those that are in schools fail to attain Minimum Proficiency Levels (MPL) (SDG Report, 2017).

This thesis looks at two educational environments in Ghana and Denmark. The thesis adopts Dewey's inquiry and pragmatic approach to analyze empirical cases from Ghana and Denmark. Pragmatism allows for a participatory and democratic inquiry approach (Dewey, 1939, Baker et al, 2016). The authors did not just study about the realities, but the educational actors in the selected schools were actively engaged in an atmosphere of co-learning.

A school each from these countries has been studied. The empirical cases in Ghana and Denmark seek to provide bases for analysis regarding different approaches and environmental realities about teaching and learning. The Bagabaga Annex A at Sagnarigu in Ghana and the Kildeskolen in Valby, Denmark serves as the empirical sites. The data from these two countries showcased contrasting realities of education in a developing and developed countries' educational settings.

Based on our empirical data and secondary data sources, we sought to investigate factors that affect pupil's learning outcomes in positive and negative ways. We looked at situations where children go to school but do not acquire the expected knowledge and skills as revealed by the World Bank HDR 2018. Situational factors of learning difficulties, situations of pupils-teacher interactions, teaching approaches and motivational factors that enhance learning are interesting areas studied. The study is not oblivion to the very different material resources available and the lack of same at each of the places. Therefore, it is important to state that this is not a direct comparative study to find similarities or differences, but a study of teaching practices at two distinct learning sites as a documentation of global educational disparities for policy actions and interventions.

Teaching practices by teachers and how pupils of 4<sup>th</sup> graders in the schools are involved in the learning spaces have been observed based on Dewey's pragmatic and inquiry approaches. Inquiry is used to apply the biological senses to exemplify the epistemological and ontological understanding of practices at the empirical sites. Through *inquiry* we employ our eyes and ears, hands and brains in seeking to understand the realities of the sites we engaged (Dewey, 1938, p.

23). The two instances have collectively provided an opportunity to understand learning situations from different learning spaces. The **rationale** for these two distinct cases is to illuminate different approaches applied by different teachers in different countries to contribute to the achievement of educational targets.

Theoretically, the works of John Dewey (1859 - 1952), an American Philosopher whose works influenced the American and global educational thinking (Cahn, 2009, p.379) provides the theoretical frameworks. Dewey's analogy of traditional and progressive education provides analytical tools to operationalize the teaching and learning practices of the empirical cases and how these practices reflect the 21st century learning situation. By applying pragmatic inquiry and abductive approach, there is interplay between the theory and the empirical data.

Gert J J Biesta, a progressive educationalist and inspired by Dewey. He presents a critical view to contemporary educational policies especially in the context of the educational evaluation regime as a way to eliminate educational risks. He states that;

"(...) any engagement in education - both by educators and by those being educated - always entails a risk" (Biesta, 2013, p. 10).

Biesta argued that educational actors should embrace this risk and see it as valuable and positive that forms an integral part of education. This is critical perspective seen in the context of the current educational practice where there is shifted focus away from education of the whole being to become a cultivated human being towards a focus on results and grades as seen in for instance Danish schools (Nielsen, 2017). Biesta is interesting due to his critical analogy of learning and teaching that in many ways complements Dewey's juxtaposition of progressive and traditional education (Dewey, 1938).

#### 1.2 Problem Statement

Education has the potential to create change in all societies. However, there are still large differences in the quality of education across the globe today (The SDG Report, 2017, p.24). Education is one of the SDGs championed by the United Nations (UN) and member states. The Educational goal seeks to tackle and improve learning conditions for children and adolescents who

are not achieving minimum proficiency levels (UNESCO UIS, 2017, p.1). The SDGs are to be achieved from 2015 to 2030. There are 17 priority Goals and they are all interconnected (UN SDGs, 2015).

"The 17 Sustainable Development Goals (SDG's) define global sustainable development priorities and aspirations for 2030 and seek to mobilize global efforts around a common set of goals and targets. The SDG's call for worldwide action among governments, business and civil society to end poverty and create a life of dignity and opportunity for all, within the boundaries of the planet" (UN SDGs, 2015).

The Goal 4 concerns an inclusive and equitable quality education with the priority to;

*"Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all"* (UN SDGs, 2015, p. 24). The Goal 4 has defined target 4.7 to:

By 2030, all learners acquire the knowledge and skills needed to promote sustainable development, sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development (UN SDGs, p.24 2017).

Furthermore, target 4.1 works towards getting all children to complete primary and secondary education of enough quality to ensure that they have "relevant and effective learning outcomes" (UN SDGs 2015). Notwithstanding the efforts to ensure learning outcomes, the global educational outlook continuous to face challenges. For instance, the World Bank's World Development Report 2017 noted that about 617 million children globally are unable to attain minimum proficiency levels.

"More than 617 million children and adolescents are not achieving minimum proficiency levels (MPLs) in reading and mathematics" (UNESCO UIS, 2017, p. 1).

The President the World Bank Group, Jim Yong Kim, noted

(...) in many countries and communities learning isn't happening. Without learning, students will be locked into lives of poverty and exclusion, and the children whom societies fail the most are those most in need of a good education to succeed in life. Learning conditions are almost always much worse for the disadvantaged, and so are learning

outcomes. Moreover, far too many children still aren't even attending school. This is a moral and economic crisis that must be addressed immediately (World Development Report, 2018).

The World Bank Report indicates that 33 percent of the children and adolescents who are not meeting the minimum sufficiency levels are situated in the Sub-Saharan Africa (WDR 2018). The report exposes the global educational challenges and described the situation as a global learning crisis WDR 2018. According the World Bank about 10% of global spending on primary education approximately \$129 billion a year is lost on poor quality education that is failing to ensure that children learn optimally (World Development Report, 2018).

The search for ideal model of education continues to influence the educational sectors in Ghana and Denmark and around the world. The Ghanaian and Danish cases are seen through the various educational reforms that the countries have gone through over the last couple of years. Much of the educational policy changes have been inspired by globalizations such as the influence of the OECD and PISA on Danish educational policy reforms (Korsgaard et al, 2018). Likewise, the SDGs have become a major policy reference point for the Ghana Educational Policy Strategic Plans (ESP) (2018-2030). The ESP (2018) is designed to reflect the priorities of the SDGs. *"The Education Strategic Plan 2018-2030 puts Ghana on the road towards meeting the Sustainable Development Goals and represents a deliberate reorientation towards this aim, as it replaces the previous ESP 2010-2020"* (Ghana Education Strategic Plan, 2018).

Ghana was the first country south of the Sahara to gain independence in 1957. The educational system in Ghana was regarded as one of the most highly developed and effective in West Africa with inspiration from the British educational system (Adu-Gyamfi et, 2016, p. 1). However, by the 1980s education in Ghana was viewed as dysfunctional in relation to the goals and aspirations of the country (Adu-Gyamfi et al, 2016, p. 1). The global learning crisis is exemplified through the Ghanaian learning space where learning outcomes are poor in primary schools. In 2013 and 2015 Early Grade Reading Assessments (EGRA) found that only 2% of grade two pupils could read and 50% could not read a single word (ESP, 2018).

Even though education has been a major priority on the agenda of successive governments in Ghana and major reforms initiated in search of workable model to reflect the development needs of the country, yet the country continues to face major challenges (Adu-Gyamfi et al, 2016, p.1). The Government of Ghana has also developed an entirely new educational curriculum for basic schools in Ghana. Ghana Education is undergoing transformation through the introduction of *a standard-based curriculum* from kindergarten to 6<sup>th</sup> grade in primary schools. "*This curriculum will focus on making Ghanaian children confident, innovative, creative-thinking, digitally-literate (and) well-rounded patriotic citizens. Mathematics, Science, Reading, Writing and Creativity are, therefore, at the heart of this new curriculum*" (State of the Union Address, 2019).

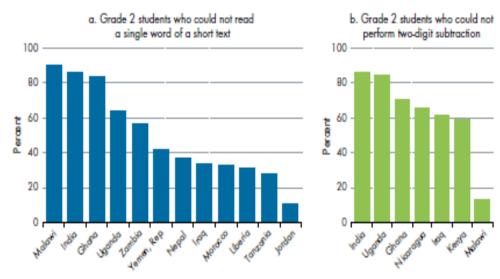
In presenting the Human Capital Report for 2018 the World Bank representative, Dr Antonio Guiffrida, revealed;

"The reality is that the education in Ghana is not of good quality, some children do not go to school at all, others go to school but do not complete, while others are malnourished and cannot fully attain their potential" (Ghanaweb 2019)<sup>1</sup>.

According to the Ghana ESP 2018, Ghana has devoted substantial resources to the education sector and has exceeded associated international benchmarks and outperforms all other West African countries (Ghana ESP, 2018). In other indicators such as democracy, Ghana is often seen as a role model in African context. The rather low placement of education as shown in the graph below creates a research interest worthy of studying.

<sup>&</sup>lt;sup>1</sup>https://www.ghanaweb.com/GhanaHomePage/NewsArchive/Poor-education-to-affect-Ghana-s-humancapital-World-Bank-698433#

#### Figure 0.1 Shortfalls in learning start early



Percentage of grade 2 students who could not perform simple reading or math tasks, selected countries

Our second empirical case is Kildeskolen, in Valby, Denmark. Denmark is a member of the Organization for Economic Co-operation and Development (OECD) and has participated in the Programme for International Student Assessment (PISA) since its inception in 2000. The scores of Danish pupils, particularly in the sciences were lower than the OECD average scores. The low scores caused dramatic changes in the Danish school system and led to policy reforms (Korsgaard 2018, Dolin & Krog 2010). The advent of low PISA scores brought about a new regime of benchmarking and national tests at the basic school levels. "(...) *PISA has had a broader impact on the whole school discourse in Denmark, including values as well as other issues in the public and professional debate*" (Dolin and Krogh 2010, p. 565). The low PISA results also increased political interference and awakened the wave of education reforms (Korsgaard et al 2018). In 2003, the then Prime Minister, Anders Fogh Rasmussen noted;

Vi skal højne de faglige krav overalt i uddannelsessystemet. Vi skal indse, at en vis portion paratviden er nødvendig. I tre årtier er der kastet vrag på paratviden. Den er blevet opfattet som sort skole, udenadslære og terperi. Det er som om, at indlæring af faglige færdigheder

Figure 1: Shortfalls in Learning - WDR 2018

er blevet nedprioriteret til fordel for at sidde i rundkreds og spørge: "Hvad synes du selv? <sup>2</sup> (Fogh Rasmussen, 2003).

This particular statement has remained a central theme in the Danish education debates, but also a significant reference in analyzing Dewayan and Biesta's educational approaches from pragmatic perspectives, where democracy and interactionism are significant. Anders Fogh Rasmussen' statement seems to reflect a paradigm shift from the notion of *dannelse* also termed *Bildung* as the underlying educational value in Denmark to a focus on competences. *Bildung* and competences are not mutually exclusive, but the underlying focus on competences is based on results-oriented school system and raises an interesting value discussion (Nordenbo, 2011, Rømer, 2019). In the book "Pædagogikkens Idéhistorie", the authors acknowledged the impact of globalization such as PISA's influence on Danish educational practices and traditions. They argued that PISA regime led to several educational reforms in elementary school, High Schools (Gymnasium) and tertiary levels (Korsgaard et al, 2017, p.362). The conversion of Teacher Training Colleges (TTC) to University Colleges (UCs) is some examples of the transformational changes in the education sector (Kristensen et al 2017, p. 408). There are various opinions regarding the different educational reforms such as increased focus on competences, competitiveness and testing (Nordenbo, 2011). Anne Maj Nielsen (2017) from Aarhus University noted; "Når det bliver karaktererne og ikke fagligt indhold, som kommer i fokus, så er der sket en forvridning af, hvad uddannelse er "3 (Nielsen, 2017, www.information.dk/indland/2017/01).

Nielsen's position reflects Biesta's notion of risk of education and beyond education discussed under the theoretical section (Biesta, 2003, Biesta 2006). Biesta noted that; "*The foundations of* 

<sup>&</sup>lt;sup>2</sup> Originally Danish citation are left in the thesis and translated by us in the notes. We have to increase the quality of education throughout the educational system. We have to acknowledge that route learning to some extent is necessary. For three decades we have "thrown pebbles" at the factual knowledge. We classify that as "the black skole", route learning and cramming. It is as if factual knowledge is undermined at the expense of sitting in round tables and asking "what do you think yourself?"

<sup>&</sup>lt;sup>3</sup> When grades and not content is an educational focus, then there is diversion of what education is about

modern educational theory and practice were laid when the tradition of bildung became intertwined with the Enlightenment" (Biesta, 2006, p 3).

The Danish Minister for Education (2017 - 2019) Riisager, noted;

"Hele uddannelsessystemet er i dag ramt af dannelsestab, som blandt andet er udløst af skiftende regeringers mange reformer på området"<sup>4</sup> (Riisager, 2017).

The philosophical ideals of Niels Frederik Severin Grundtvig such as "Skolen for Livet" in contrast to "Den Sorte Skole" (Korsgaard 2018), reflects the notions of the 21st century skills and thoughts of Dewey's progressive education. Grundtvig anticipated strong links between the well-educated and the ordinary people. The "School for Life"<sup>5</sup> aimed to; "Sammen knytte den lærde dannede med den folkelige" (Korsgaard et al, p. 234). This is the core of Grundtvigs folk high school idea and it remains central reference points and presents an interesting perspective to Deweyan and Biesta's ideals especially that they all share democratic ideals.

The president of the World Bank (2018), noted that education is different from schooling.

*"To realize education's promise, we need to prioritize learning, not just schooling"* (WDR, 2018, p. 12).

The discussion above is not an attempt to investigate the concept of "*bildung*", but it is relevant seen, especially in the context of Deweyan progressive education (Dewey, 1938, p.17) as well as Biesta's critical presentation of the goal of education (Biesta, 2013, p. 1). Biesta noted that; "(...) *if we take the risk out of education, there is a real chance that we take out education altogether*" (Biesta 2013 p. 1).

## **1.3 Problem Formulation**

The empirical data of the thesis is collected from two empirical sites: A 4<sup>th</sup> grade in The Bagabaga Annex A in Tamale, Ghana and a 4<sup>th</sup> grade in Kildeskolen in Valby, Denmark.

<sup>&</sup>lt;sup>4</sup> The entire educational system is deficient of self-cultivation as a result of the changing governments and many educational reforms.

<sup>&</sup>lt;sup>5</sup> Connect the educated and the ordinary people

How can inquiry be used as a tool to investigate teaching approaches and learning environments at the Kildeskolen and Bagabaga Annex A in Denmark and Ghana respectively?

The cases in Ghana and Denmark provide empirical sites to make inquiry into the teachers' and pupils' interpretation of their teaching methods, materiality and the circumstances that define their working conditions.

#### 1.4 Conceptual Clarification

#### Inquiry

Inquiry processes begin with some element of doubt and this leads to creation of knowledge accompanied by a set of beliefs that concretize the knowledge and provide basis for action (Dewey 1938, p. 7). The process of engaging the inquiry process requires the actor to ask questions and seek answers to eliminate the initial element of doubt. It is the interplay between the element of doubt and the elimination of the doubt that Dewey termed as the concept of inquiry (Dewey 1938, p. 202–8).

#### 21st Century Skills

21st Century Skills is defined as the ability to use technological devices to access, synthesize and process information and develop computation skills. This includes the ability to think critically, creatively and evaluate the products of one's thinking, communicate effectively and collaborate with others, particularly in diverse and multicultural settings (Rose, Mike 2018, p. 4). It is often summarized to include the 4Cs Critical thinking, Communication skills, Collaboration skills, as well Creativity and innovation skills (Germaine, Ron *et al 2016, p. 20*).

#### Materiality

The concept of materiality refers to the ways by which the physical and/or digital materials are arranged into forms, which endure across differences in place and time. This definition suggests that "materiality" identifies the constituent features of a technology that are (in theory) available to all users in the same way. The term "materiality" is also characterized by properties of artifacts that do not change from one moment to the next or across differences in location. Materiality as "continuance" suggests that objects endure, exist through time, and are fully

present in their lifespan (Faulkner, 2011, p.3, Paul M, 2011, p. 29). Unlike materiality, events take place with different parts occurring at different times. The lifespan of objects depend on the nature of the object (Paul M., 2012, p. 29).

In relation to the significance of materiality to pedagogical understanding, Larsen (2005) describes the concept to mean:

"Architectural and physical spaces are material phenomena that are man-made, and neither based on mental phenomena or natural phenomena" (Larsen, 2005, p.9, 2010). Andersen & Ellegaard write that materiality is something we can touch, something physically concrete, created by or shaped by humans, and which is of social significance as it surrounds our practice (Andersen & Ellegaard, 2012). In the process of collecting data at the respective empirical sites, we became aware that the concept of materiality focuses on a dialectical process where physical surroundings not only surround us, but also affect our actions, and through bodily actions we influence them and vice versa (Andersen & Ellegaard, 2012, p. 487).

#### **Teaching Approaches**

Society exists through a process of transmission. This transmission occurs through communication of habits of doing, thinking and feeling from the old generation to the younger generation. The lack of such transmission and communication of ideals, values, believes, expectations, standards etc by the members of the society aging to the newer generation, social life will be unsustainable. In this regard, education through communication is central to teaching and learning as the core of societal survival (Dewey, 1916, p 3).

Dewey proposed a model of teaching where educators account for ways by which the learning environments positively interact with the needs, abilities, and aspirations of pupils (Dewey 1916). From this perspective education is a social process, and therefore the personal experiences of pupils should be incorporated into the learning curriculum as a way to enhance functional and lifelong learning. From a Deweyan standpoint, a learner-centered pedagogy recognizes the significance of the pupils' prior and current experiences and incorporates these into the learning situation (Dewey 1916).

## 1.5 Pre-Assumptions

Inquiries approach applies having original doubts and seeking to eliminate them (Dewey 1938, p. 202–8). We have had to change our assumptions the more we made inquiry into the empirical sites. For instance, our initial pre-assumption was that a smaller percentage of the pupils in both cases would fall within the category of "In school, but not learning" as defined by the World Bank (World Development Report, 2018). And that Ghana would *most likely* fall within the category of learning crisis group whist Denmark would be *least likely* (Flyvberg, 2006, p 231). And that this group and their teachers would be the primary and key focus groups. However, the first interaction with the empirical case in Ghana got us to reflect over and adjust our pre assumptions. Our inquiry revealed that;

"In fact only 4 of the pupils can read as they are required. I will say that 90% of them cannot read and write as expected of them at this level of their education" (Adisah, 2018, p.1, Annex I). With such relevant finding at the initial stage of the inquiry, we adjusted the pre assumptions to new ones. Our new assumption was that the Danish case would, still be match out assumptions and that the Danish case will provide innovative teaching approaches to reflect a progressive educational system. We also adjusted the research guidelines and changed the idea of just studying focus group to looking at the entire classes and their learning environments. The experiences from Ghana served as the basis for the design of the interview guide for inquiry into the Danish school.

## 1.6 State of the Art

This section builds on the elaborate discussions under the problem statement (1.2) and forms part of the state of the art below. We shall emphasize on few cases that are relevant to discuss in relation to learning environments in Ghana and Denmark. Search into research databases to ascertain the state of the art of a scientific analysis of learning environment in Ghana and Denmark has been hard to get. The few relevant works are discussed below.

In their article entitled "Building New Identities in Teacher Preparation for Inclusive Education in Ghana" and published in the journal; Current Issues in Education, Agbenyega of Monash University, and Deku of the University of Cape Coast, Ghana, jointly presents a critical reflection on current pedagogical practices in Ghana in relation to inclusive education. The authors use a

critical post-colonial discursive framework that problematizes the existing pedagogical practices in Ghana. They find the pedagogical practices "intensely oppressive" (Agbenyega & Deku, 2011, p. 1). The paper examines the impact of colonial and cultural practices (beliefs, values, norms) on teaching and learning. They found that current pedagogical practices are prescriptive, mechanistic, and do not value student diversity and different learning styles (Agbenyega & Deku, 2011). The empirical data is collected by observing student teachers' in their teaching practices.

From Danish perspective, Knud Illeris', a Professor of Lifelong Learning at the Danish University of Education, Aarhus, work on learning is relevant for reflections. In his book, Learning and nonlearning and Beyond 2006, Illeris argues that today's knowledge and societal concepts of lifelong learning have become crucial to both the formation of policy and practice and the individual experience of learning. He presents deal types and fundamental issues of the processes of learning. He applies a critical assessment of different types of learning and challenges to learning. At the same time, he takes up a broad range of other important factors in relation to learning: Factors, such as learning environment and the bodily/senses (materiality), self-perception, motivation, competence development, intelligence, learning style, teaching approaches, school-based learning, educational politics etc. Illeris' work presents a comprehensive introduction to both traditional learning theory and an innovative contribution to a new and more holistic understanding of learning. "How we learn" examines major key factors that help to create a holistic understanding of what learning actually is, how and why learning and non-learning take place (Illeris, 2016). Illeris' definition of learning to be referred to both the interaction processes between individuals and their material and social environment, which, directly or indirectly, are preconditions for the inner learning processes covered by meaning is significant for the study (Illeris, 2006, p. 3).

This thesis draws inspiration from the authorships presented above. However, the international analysis of teacher's role and materiality from pragmatic inquiry approach presents a unique opportunity and added value on the subject matter. This thesis argues that educators, policy makers and researchers alike need to understand the uniqueness of global educational complexity that does not require one-size -fits-all policies. It presents the position of teachers and pupils regarding their own work and the significance of materiality in the teaching and learning environment.

## 1.7 Delimitation

This study is a collaborative study of Danish and Ghanaian educational systems. It is also not an analysis of all manner of ways by which human beings acquire knowledge and competences. It is limited to primary education with focus on grade 4s of two schools in Ghana and Denmark. These are the Bagabaga Annex A in Ghana and Kildeskolen in Denmark. It is also not a presentation of the many different schools of thoughts and theories within the framework of learning. The approach is minimal in the sense that, the purpose is to gain first and foremost, the phenomenology of teaching and learning environments from two distinctly different learning environments. The thesis looks at Dewey's traditional and progressive education as well as Biesta's critique of especially educational focus on results rather than teaching. The realities of teachers and pupils and the essence of materiality in the learning environment serve as the core of the project.

The empirical data are separately collected by each of the students separately and at different times. They are not for comparative intent (Bryman, 2016, p.60). The understanding in Ghana and Denmark is narrowed to single schools and single classes. Readers must be circumspect in generalizing the study to represent the general learning contexts in Ghana and Denmark. It is to provide opportunities for references and perspectives in understanding why some pupils don't acquire desired learning outcomes. It also illuminates the different learning environments and learning cultures. The examples from Bagabaga Annex A, Sagnarigu of Ghana and Kildeskolen in Valby Denmark are two distinct societies, but the findings could be relevant in the determination of specific contextual significance in educational research.

## 1.8 Ghana Geography and Education

Ghana is West African country and surrounded by Togo, Burkina Faso and Ivory Coast. The country was colonized by the British and gained independence in 1957. Ghana's population is estimated at 30,2 million people (Ghana Statistical Service, 2019). Ghana is a developing country with increasing youth population. It is estimated that about 4,2 million of Ghana's population is made up of children within the ages 6-11 years; This is the school-age of Primary education level

in Ghana<sup>6</sup> (Ghana, UNESCO UIS, 2017). Although the Primary level is a crucial time in an individual's school life, many children in Ghana has learning difficulties and about 15 percent of this group are out of school and lacking reading and math skills (Ghana, UNESCO UIS, 2017).

The **Basic Education** is made up Kindergarten (two years), Primary (six years) and Junior High School (three years). Basic and recently (2018) also secondary education is free. Basic education is, not just free but it is compulsory for children between ages of 6 and 15 (Ghana ESP, 2018). Many children are however out of school. The Free Compulsory Universal Basic Education (FCUBE) Programme instituted in 1996 had the key aim to guarantee the right of every child access to quality basic education (Adu-Gyamfi et al, 2016).

1.8.1 The Chart Showing the Ghana School System<sup>7</sup>

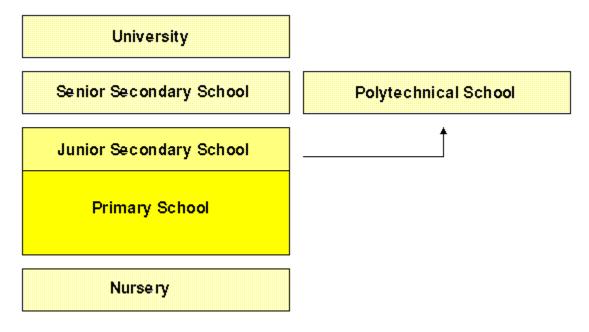


Figure 2 Ghana School System - (Ulzen, 2017)

<sup>&</sup>lt;sup>6</sup> <u>http://uis.unesco.org/country/GH</u>

<sup>&</sup>lt;sup>7</sup> Source: Edward A Ulzen 2017

The official language of teaching in Ghanaian education is English, except for the first 3 years termed as lower primary education where the local language<sup>8</sup> (Language one or L1) in each region is used as the language of instruction (Ministry of Education, 2012). It is estimated that about 47 distinctly different languages exist in Ghana (Ghanaweb 2019).

Formal education in Ghana started during the colonial period and was introduced to Ghana by different European countries such as the Danes, Dutch and English at different times. The Europeans established schools in the mid-eighteenth century to eradicate illiteracy and to preach gospel (Adu-Gyamfi et al, 2016, p.2).

The Ghana educational priorities are defined by the Education Strategic Plan (ESP). The current ESP covers the period 2018-2030. It has the objective of creating "an inclusive education system through improved access and equity, and provision of quality and relevant educational opportunities for all" (ESP, 2018)<sup>9</sup>.

The following are the five key priorities areas of the ESP (ESP 2018):

- 1. Access and equity: Equal opportunity to obtain access to education, to learn and the provision of an environment that is conducive to learning and achievement of learning outcomes that demonstrate fair and just assessment,
- 2. **Quality**: Achievement of high level standards and system responsiveness at all levels of education,
- 3. **Relevance**: Learning, including skills development, which is responsive to individual, community and national development needs,
- 4. **Efficiency** and effectiveness: Management of all resources that ensure value for money to achieve desired goals,
- 5. **Sustainability**: Judicious utilization of human, financial and material resources to ensure balanced and continual development of the education system.

<sup>&</sup>lt;sup>8</sup> It is estimated that there are about 47 distinct different languages in Ghana.

<sup>&</sup>lt;sup>9</sup> <u>https://www.globalpartnership.org/country/ghana</u> (21/02/2019)

## 1.9 Denmark Geography and Education

Denmark is one of the smallest and oldest countries located in Europe. The population in this country is approximately 5,8 million in 2018<sup>10</sup> (Statistic Denmark). It is said that Denmark is one of the countries which combines a political system of constitutional monarchy and modern demonstration (danmark.dk). Denmark is one of the Scandinavian countries. The country's territory incorporates the Jutland Peninsula and around 406 islands. Denmark is said to be a country with a high level of social trust and has one of the best welfare systems which is financed through the high taxes paid in Denmark. The taxes make it possible for the people to have free health and free education (from primary to university) (danmark.dk).

The Danish School "Folkeskole" was founded in 1814, and it has become the transmission point of Danish identity and culture. It includes a 1-year preschool class and 1-9 grade of compulsory primary education<sup>11</sup>. An extra optional year termed as the 10th grade or "Tinende" is a possibility. This is offered at selected schools and sometimes at the so called "Efterskole" that are mostly boarding schools (Efterskole.dk). Folkeskole is organized according to age, and not based on intelligence. Pupils usually stay in the same class from age 6 to 16 (Dolin & Krogh, 2010). The preamble to the Folkeskole Act has an overall aim as: *"The school shall prepare the pupils for active participation, joint responsibility, rights and duties in a society based on freedom and democracy"* (Folkeskoleloven, 2000, §1).

The Danish school system has undergone various reforms since the beginning of the millennium<sup>12</sup> (Undervisningsministeriet, 2019). There is the constant debate regarding how to increase quality and where to place priority areas<sup>13</sup> (VIVE Report, 2018). In 2016 about 467.000 of the total population were between the age of 6-12 years and this group represent the Primary school going age (Denmark, UNESCO UIS, 2017).

<sup>&</sup>lt;sup>10</sup> <u>https://www.dst.dk/en/Statistik/emner/befolkning-og-valg/befolkning-og-</u>befolkningsfremskrivning/folketal

<sup>&</sup>lt;sup>11</sup> Parents might choose to adopt home teaching model. The teaching must meet national standards.

<sup>&</sup>lt;sup>12</sup> <u>https://uvm.dk/aktuelt/nyheder/uvm/2019/jan/193001-folkeskoler-faar-styrket-faglighed-flere-midler-til-understoettende</u>

<sup>&</sup>lt;sup>13</sup> <u>https://www.vive.dk/da/nyheder/2018/status-paa-skolereformen-efter-aar-4/</u>

# Chapter 2: Methodology

This chapter looks at the methodological considerations and how the entire research is designed, how data is collected, codified and analyzed. It seeks to make the research process transparent and logical as possible. The thesis is a collaborative learning project where two students with shared interests seek to create a shared learning product. It explores ethnographic approaches of qualitative methods and data collection to clarify the research problems. One of the authors was in Ghana in connection with his practicum and used the opportunity to collect data from the Ghanaian case. The other student collected data for the Danish case. The data for this study is collected individually and separately. The data is jointly analyzed by the two students.

Through pragmatic and participatory inquiry approach (Dewey 1938) where the use of experiences matter, the reflections and experiences from the first empirical case served as the basis for data collection at the Kildeskolen in Denmark. Inquiry is a reflective thinking process and we needed to think and reflect over every aspect of the process of engagement with the actors for a coherent, valid and reliable outcome. The careful definition of research questions and use of experiences in the study process is vital in the inquiry process (Ejsing-Duun & Skovberg,, 2018, p. 2). The study is generally influenced by qualitative approach, but we are mindful that there are elements of quantitative methods and do not intend to draw a distinct line between the two approaches (Bryman, 2008, p. 19).

Dewey' notion of pragmatism provides us with the tools to think, reflect and evaluate the research process. One of the core positions of Deweyan pragmatism is the primacy of the so called 'practice principle'. Theory and practice are not separate entities; rather, they are intertwined and influence each other. Theories arise from practice and must be evaluated based on how they shape our understanding of actions in practice (Hansen & Dalsgaard, 2012, p 667). The understanding of the interconnectedness between theory and practice allows us to define the actual theory and also to define whether our collected data are used inductively, deductively or by abductive approach (Bryman, 2016, p.18). The next section presents our philosophy of science standpoint and how that shaped the qualitative approach to data collection.

## 2.1 Scientific theory

#### 2.1.1 Pragmatism

This chapter is mainly inspired by Dewey's pragmatism (Dewey, 1931). Other authors such as Biesta (Biesta, 2003) and Ejsing-Duun, Tangaard and Brinkmann have also been used as references and their works collectively enrich the discussion on pragmatism.

The origin of pragmatism dates back to Charles Sanders Peirce who expounded the idea of pragmatism in his essay *"How to make ideas clear"*. Dewey's notion of pragmatism is influenced by Kant's notions of *pragmatic* and *practical* ideas (Dewey, 1931, p. 13 - 15). Pragmatism is the branch of philosophy of science that emerged primarily from the writings of American thinkers (Dewey, 1931, p. 13). Dewey is classified as one of the proponents of pragmatism and scientific thought. Dewey's notion of pragmatism is a combination of realism and constructivism (Biesta, 2003, p 13). The proper interpretation of pragmatism concerns the function of consequences and the validity of propositions of pragmatic solution to a specific problem (Dewey, 1939, p. 3-4). Pragmatism is a temper of mind, an attitude and it is also a theory of the nature of ideas, of reality and of experience: It is sometimes termed as experientialism (Hickman, 1998, p. 377). Pragmatism contended the separation of theory and practice as well as knowledge and action (Dewey, 1931, p. 299). This is where the essentiality of pragmatism is significant. It calls for action beyond knowledge and calls for the application of the biological sense of people. Reflection and thinking and the integration of mind-body in action are central to pragmatism (Dewey, 1931, p. 304).

#### 2.1.2 Characteristics of Pragmatism

- Pragmatism provides the research process with different ways to conceive the relativity between knowledge and action.
- It also provides the researcher different ways to think of the relationship between theory and practice.
- It recognizes that both research and educational practice are practices involving application and coordination

- Pragmatism furthermore makes it feasible for researchers to adopt multiple research tools since science and everyday life form part of the reality and knowledge objects.
- Lastly, pragmatism provides researchers with intellectual resources to rethink and reconsider the purpose of research, not just as scientific exercise, but as human action (Biesta 2003 p. 108).

The relevance of pragmatism to this thesis is based on two accounts. The first reason is associated with the fact that the theoretical underpinning of the thesis is based on theoretical thoughts of pragmatists and progressives such as John Dewey and Gert JJ Biesta. The second reason is that, the research adopts a pragmatic approach by adopting interactive processes and different qualitative research tools in the study process. Much of the qualitative data was through observation and interviews as conversation and dialogue (Kvale, 1996, p. 27).

Dewey's pragmatism was response to what he termed as disintegration of common sense as a result of influence of science in normal everyday life (Biesta, 2003, p. 17). Deweyan pragmatic inquiry and its relevance to educational research lies in the fact that it provides various modes of knowledge and a different understanding of the way human beings acquire knowledge within the framework of philosophy of action where the role of action and activity are central (Biesta, 2003, p. 9). Human action serves as the binding force and interconnects educators and researchers for further action. The 'practice principle', which rejects the separation of theory and practice, is relevant for this study (Hansen & Dalsgaard, 2012, p. 667). For this study they are intertwined, such that theories arise from practice and must be evaluated on the basis of how they shape our understanding of, and actions in practice. This is also where the interplay between empirical data and theory as in the abductive method makes sense to this study.

In this context, pragmatism as philosophy of science provides a distinct perspective on educational research, to understand the possibilities and limitations of our study of learning and its challenges in Ghana and Denmark. From the perspective of Dewey, educational research and practice are intertwined and involves beliefs about reality of experience and human action. Reality constantly changes as a result of experience and requires revision (Biesta, 2003, p. 107).

Our research on learning environments is not just about finding better, more sophisticated, more efficient, or effective means of achieving educational ends that are taken for granted, but understanding the dynamics which are into play and how that affect learning outcomes in the respective cases.

## 2.2 Educational Research and Pragmatism

#### 2.2.1 Inquiry Approach

Dewey's (1938) concept of inquiry, in which inquiry exemplifies the epistemological and ontological understanding of pragmatism seen in the context of educational research, is the essence of this section.

We take cognizance of Dewey's proposition of 'doing' and 'directed transformation' as central to the understanding of how learning through thinking and reflections is conducted (Ejsing-Duun & Skovberg, 2018, p. 2). Inquiry enables an empirical account to be given in its logical forms. The basic conception of inquiry as determination of an indeterminate situation enables judgment and propositions to obtain an objective solution. Inquiry through observation enables a coherent account of the different propositions to be determined (Dewey, 1939, p. 3-4). Dewey defined the process of inquiry as a process of transformation beginning from an indeterminate problem and doubts (Ejsing-Duun & Skovbjerg, 2018, p. 1). Our inquiry processes begun with definition of the problem to be investigated.

Our initiation inquiry process began with curiosity to understand the problems associated with the global learning crisis (World Development Report, 2017). To this we embark on a journey of inquiry to understand the reality of learning in the selected schools. We anticipated that our active engagement, in participatory manner, with the actors would lead to greater understanding of the realities of the learning environments. We imagined a possibility of establishing set of beliefs that would concretize the realities at the learning environments and provide basis for action that can be acted upon (Dewey 1938, 202–8 in Ejsing-Duun & Skovbjerg, 2018, p 2). As Inquiry process

requires the actor to ask questions and seek answers to eliminate the initial element of doubt, we observed the teaching practices and interviewed teachers and interacted with pupils to find out how teaching and learning is conducted at the respected schools. It is the connection between the element of doubt and the elimination of the doubt that Dewey termed as the concept of inquiry (Ejsing-Duun and Skovbjerg 2018, p. 3).

Our observations and interactions with the actors, pupils, materials at the empirical sites, collectively set the findings as the outcome of this thesis. As Dewey emphasized, inquiry is a reflective thinking process and we needed to think and reflect over every aspect of the conversation and engagement with the actors. Dewey's five scientific and inquiry steps guided our inquiry process (Ejsing-Duun & Skovbjerg, 2018, p. 3).

- 1. The occurrence of a difficulty (an indeterminate situation) is identified Our initial curiosity was provoked by the World Development Report that proclaimed global learning crisis. It was unimaginable that 617 million children go to school and yet they learn nothing as the report suggested (UNESCO UIS, 2017, p. 1.)
- 2. The difficulty is defined we concretely defined the problem and zoom in to the selected cases to investigate their learning environments. What are the realities and challenges seen in the context of teaching and learning from the perspectives of teachers, pupils and what we observed?
- 3. Suggested explanations or possible solutions are advanced Our research strategies were designed; interview and observation guides were developed, and we engaged the actors. Our inquiry revealed some suggestions from teachers and pupils regarding ways to improve their learning environments.
- 4. The explanations or solutions are rationally elaborated as ideas through pragmatic approach, we have carefully reflected over the solutions provided by the respondents and ascertain their feasibility and applicability.
- 5. The ideas are tested through experiments, which can corroborate the idea and form a concluding belief. Our way of finding out the feasibilities of the ideas are seen in the context of the theoretical lenses we used and ideas from the teachers and pupils. Both Dewey and Biesta provide set of insights into teaching and learning.

Even though the steps presented above are the ideal types careful reflections and their applicability support our inquiry process. The study adopted two empirical cases and collaborative data collection process. The empirical data from Ghana set the stage. The experiences from Ghana was reflected upon, adjusted and served as guide to the data collection of the empirical data in Denmark. The authors engaged the actors actively by asking direct questions regarding why they do what they do and by interactions with the pupils to create deeper understanding of their learning environment. We also sought to understand what, in their opinion, constitutes an ideal teaching and learning environment. Except for few modifications, the same method was used in the data collection process. The Ghanaian process was much more unstructured initially. Experiences from the initial engagements were used as basis for adjustments. Application of experience is a key factor in Dewey's pragmatic and inquiry approach (Dewey 1938). Thinking and reflection are forms of human activity that are necessary in research and knowledge acquisition but thinking and reflection require some form of passive action (Dewey, 1922, p. 69 in Brinkmann & Tangaard, 2010, p. 245). There were instances where we were forced to step back from our immediate engagements and develop new ideas, thoughts, as essential embodiments of the process of inquiry.

The problem formulation was designed to guide the process but has been looked at and adjusted several times throughout the process. The experiences have continually reshaped the problem and realities at the empirical sites. The findings regarding the learning environemnt in Ghana particularly, but also in Denmark is reflected in the pragmatic ideal that human beings are in a constant state of transformation and that human existence is defined by human actions as living beings (Ejsing-Duun & Skovbjerg, 2018, p 3). The Danish and Ghanaian school systems both experienced major reforms. In 2014 the 'Folkeskole' went through major reforms (Danish Ministry of Education, 2014). The Ghanaian basic school curriculum is changed, and the ESP replaced (Ghana Education Service, 2019).

The inquiry reveals two distinct realities both in relation to approaches, values, beliefs and materiality and these calls for different actions in the quest to address learning challenges and prospects. The statement below reflects our position that different realities require different actions.

If one assumes, for example, that knowledge can provide us with information about realities as it "really" is, and if one further assumes that there is only one reality, then one might conclude that there is eventually only one right way to act (Biesta, 2003, p. 2).

The above-mentioned quote emphasizes what can be perceived as the essential core of the application of pragmatism in this thesis. It recognizes that Denmark and Ghana are two distinct spaces and embody different realities but definitely provide basis for knowledge expansion and drawing perspectives for learning. We deduce that what works in Denmark might not necessarily work in Ghana and the vice versa, through pragmatic actions, ideal solutions are possible. This is because, pragmatism recognizes and situates reality, knowledge and action and how these interactions occur between actors. Dewey explained that individuals construct their own worlds; *"We all live in our own world, a world that is meaningful for us in a way that it can't be meaningful for anybody else"* (Biesta, 2003, p 12). It also creates an understanding of transactional approach to educational research from the perspective of shared and joint actions by educational actors (educators, researchers, policy makers and civil society) (Biesta, 2003, p. 3).

## 2.3 The Transactional Approach

Dewey stressed the significance of experimental method which involves an interaction between the mind and nature embodying human nature and the environment made up of natural, social and human action;

"The interaction (transaction) of organisms and environment is an active, adaptive and adjustive process in which organisms seek to maintain a dynamic balance with its ever-changing environment" (Biesta, 2003, p. 10).

The perspective of transactional framework presents knowledge as a function of human action, human interaction and communication in research process (Biesta, 2003, p. 107). He further argues that reality reveals itself through action and activity that produce experience through the "doings" with other organisms. In this context reality is "experienced" and transacted and this position is what defines Dewey's notion transacted realism (Biesta, 2003, p. 10).

What is perceived as real is as a result of our actions and transactions (Biesta, 2003, p 11). Implying that knowledge is acquired through transaction and action;

Dewey explained that; "Knowledge lives first in the muscles - and not in the mind" (Biesta, 2003, p 11). Biesta and Dewey's concept of knowledge acquisition intersects where Biesta talks of education's ability to create human subjectivity and being creative. Biesta's 2013 reference to W B Yeast's notion of education not being about *filling a bucket but lighting a fire* is interesting (Biesta, 2013, p.1 & 11). Knowledge acquisition involves human interaction and active engagements and not a passive process. It is through our constant transactions with the environment and continuous effort to maintain a dynamic balance with environment that we develop patterns of possible action. Action applied continuously become *habits* that are used to respond and transact with the environment and through the process of *trial and error* we experience the consequences of our doings and try to adjust our actions in repeated circle of repetitions (Biesta, 2003, p. 12).

The world is a social space made up other human beings rather than us, individuals must act together due to our shared social values such as democracy in order to achieve shared goals. Subjects need to adjust their own world view, their beliefs, perspectives and patterns of action in ways that make coordinated actions possible and create intersubjectivity (Biesta, 2003, p. 12). Intersubjectivity is possible through communication, defined as the practical coordination and reconstruction of individual patterns of action that has the possibility of creating shared intersubjective world. Biesta refers to this as practical intersubjectivity to mean the use of language and communication as means of transaction (Biesta, 1994 & Biesta, 2003, p. 13).

"Education is society's way of making sure that fruitful new ideas will be devised in the future, and this is achieved only through communication" (Brinkmann & Tanggaard, 2010, p. 244).

## 2.4 The Abductive Approach

Empirical and theoretical reflections jointly inspired the thesis. The initial idea to make inquiry into learning spaces was provoked by the World Bank declared global learning crisis (UNESCO Institute for Statistics (UIS), 2017). Experiences gathered at the first case raised the question of teaching approaches, and learning environments as significant to learning outcomes. This is where theoretical ideas of John Dewey and Gert J. J. Biesta came into the process. Notions of traditional

and progressive education provided the lenses through which we studied the empirical data. At the point of data analysis, issues such as materiality from the perspective of the teachers and pupils became eminent. At this point, the concept of materiality emerged out of the material disparities between the two cases (Table 1).

Thus, the thesis has been influenced by interplay between theory and empirical data. The abductive approach takes its point of departure in the assumption that the reality is known through active participation, interviews and observations. Our data collection was done by doing and active engagement into the data collection process and thereby learning from mistakes, experimentation, and feedback (Brinkmann & Tangaard, 2010, p. 255). The experiences from the first data collection process fed into the design and data process of the second case.

It further states that it is through participation in practices that the reality is created (Kirkeby, 1994, p147). The abductive approach therefore fits into the pragmatic approach due to its action and participatory approach. The use of abductive approach implies references to and taking bits of the ideals of the deductive and inductive approaches. This form of reflection of both the inductive and the deductive approaches are relevant to the extent that they reduce the researcher's subjectivity (Alvesson, 2005, p 121).

The data in Ghana was collected within two weeks and three days in Denmark. After the period, we have had to seek extra information and for further clarifications through emails and other means. The abductive approach is a never-ending one and the researcher keeps going front and back seeking further information and only limited by time (Kirkeby, 1994, p. 147).

#### 2.5 Hermeneutic and Phenomenology

Interpretation of meanings accrued through empirical data, secondary data and phenomenological description of key phenomenon in the analysis of the thesis are essential to point out. We were mindful of the concepts and choice of words and what these concepts meant to the respondents and to us as interviewers. Our foreknowledge of educational systems and practices in the two

empirical cases helped to reduce misinterpretation of concepts and meanings (Kvale, 1996, p. 38). The use of the empirical data calls for constant interpretation of meanings and observation.

The phenomenological process focused on our openness to teachers' realities and their precision to the meanings of concepts of their teaching and learning environments. Through our conversations and dialogues, they narrated through shared languages that helped us in the determination of meanings and realities. Even though we, in some instances gained the benefits of our presupposition, but we did not allow this to come the way between the realities and our own belief and value and perceptions.

## 2.6 Epistemological Considerations

Epistemology originates from two Greek words; "*Episteme*" which means *knowledge*, understanding and "*Logia*" which means *science*. Epistemology supported us to reflect over how empirical data was treated in the most reliable and justifiable means (E Ertekin, B Dilmaç, A Delice, E Aydin, 2009, p. 185). The effort here is to look at social practices of schooling and education (Brinkmann & Tangaard, 2010, p 44) and see this in the context of the educational practices at the empirical cases. Pragmatic inquiry is used due to its ability to apply the biological senses to exemplify the epistemological and ontological understanding of reality. Dewey stated;

"It is obvious without argument that when men inquire, they employ their eyes and ears, their hands and their brains (Dewey, 1938, p. 23).

This is coined out of "the spectator theory of knowledge" with references to the dualism of knowledge and action and its significance to educational outcome (Brinkmann & Tangaard, 2010, p.245). The focus was among other things based on whether there interactions based on dialogue or monologue or whether they were based on action. Dewey argued, that people know different things, and that everything that is known and to be qualified as knowledge must have some connection with practical action. Passive observation is not true knowledge except the fact that it enables the actors to make difference in human experience. Notions of epistemology are broadly represented from two fronts. The epistemology of the eye and the epistemology of the hand (Brinkmann & Tangaard, 2010, p. 245). To avoid passive observation, we applied interviews and engaged the informants through formal and informal interactions. As researchers we sought to

'overcome the ''spectator'' stance and to understand the educational realities through practical, active participation in the process (Garrison, 2001, p. 289 in Brinkmann & Tangaard, 2010, p. 250).

Dewey's philosophy of scientific reasoning can be aligned to the concept of fallibilism due its position that knowledge is not completely certain. We can never be certain that our previous patterns of action will be appropriately applicable for future encountered problem-solving processes (Biesta, 2003, p. 13). It is further explained that men live in an ever-changing world where each practical situation is unique and require, in some instances practically new set of actions. The data collection process at the two different sites revealed the uniqueness of each of the sites that called for revision of action and practical approach to the actions.

"The ways in which the world can surprise us always provide input into the cycle of inquiry and action, forcing us to change our knowledge of the world and our ways of acting within it" - every action yields new experiences to learn from and require new action" (Biesta & Burbules 2003 p.13).

#### 2.6.1 Applying Epistemology to Education

There is the notion that pragmatism as an approach to education has been taken to its radical forms by Biesta and his colleagues of pragmatists. They insist that educational processes should not be limited to mere preparation of people to participate in what they call 'a world that is finished and static'. In their view, 'epistemology of the eye' has a tendency to favor theoretical knowledge of the world (Brinkmann & Tangaard, 2010, p. 253). Pragmatists hold the view that educational goal should involve a formation of critical thinking actors that enable them to participate in the creation of the 'unfinished world'. The process of recreating the unfinished world has no manuscript prepared in advance, but actors must adjust and reconstruct ideas and practices to guide the process (Osberg et al., 2008, in Brinkmann & Tangaard, 2010, p. 253). Knowledge is not a representation of the world, but rather a tool for engaging actively in the world. It requires innovative teaching and learning processes to avoid reproduction of the world as it is. Learning institutions should cultivate skills of creation and co-creation of knowledge. This brings the discussion to the central educational goal of creativity from the perspective of the epistemology of the hand and Dewey's concept of learning through action (Brinkmann & Tangaard, 2010, p. 254). Learning ideals that

follow the lines of everyday life and based on scientific modes of inquiry, practical activity and on the social and cultural dimensions of learning is desirable (Brinkmann & Tingaard, 2010, p 254). Learning is view as acquired experience, knowledge, and authority on the basis of which the formation of personal experience and meaning is realized and achieved. Knowledge is seen as a path to freedom and creative independence achieved out of social regulation and the interconnectedness of the relations between hands, bodies, and the world. Learning as a continuum points to the fact that actors use the hands to adapt to and understand the world, and to get a better grip, of the world. It involves moving closer to things, and gradually into the world. Epistemology of the hand is further elaborated on the notion of education to base on what is termed 'pedagogy without words' (Kvale, 1999, in Brinkmann & Tangaard, 2010, p. 255).

The research process was characterized by active engagement with the research sites. We were also conscious of the active involvement of the pupils in the learning process. This study has involved epistemological process of action, thinking and reflection (Brinkmann and Tangaard 2010 p. 255). This reflective process has meant some form of abductive process where we have to think and reflect the relationship between theory and data as a way to validate the realities and how they mediate the action-consequence relationship (Brinkmann & Tangaard, 2010, p 256).

## 2.7 Ontological Considerations

Ontology is the study of what exists. In this context, questions of the fundamental parts of the object of study must be asked to establish whether physical parts are more real than the immaterial concepts. In our context both practices such as norms and approaches and materiality have become focus areas. The concept of ontology is also used to discuss challenging questions which helps to reflect over the relationship between theories and empirical data.

In the process of gathering empirical material from the empirical sites, considerations concerning factors with the nature of social entities were considered since these elements contributes to defining the social ontology (Bryman, 2016, p.32). Social ontology relates to; "(...) emphasis on viewing the social world as the product of individuals rather than as something beyond them (Bryman, 2016, p.167). When focusing on the social world as product of individuals, it is then

relevant to consider questions concerning, "whether social entities can and should be considered as objective entities" or "whether social entities can or should be considered as social construction" (Bryman. 2016, p. 29). The quest to investigate possible teaching methods and the learning environment relevant to for desired learning outcomes are ontological reflections. We are therefore working with an ontological assumption that the social entities and their meanings are continually being accomplished by social actors (Bryman. 2016, p. 29).

We are of the notion that the social ontology with focus on the actors can and should be considered as social construction since their world is built on the opinions and actions of the social actors (Bryman, 2016, p. 29). Constructivism is an ontological position which implies that social phenomena are not only produced through social interaction but are in a constant state of revision (Bryman, 2016, p. 29).

The ontological position is focused on the question of the reality of our informants and their connection to the 'real world of learning' - the learning environment. The constructivism position helps us to consider which parts of reality we seek to investigate to gain the knowledge we need and it also leads us in the direction of a relevant research strategy to collect and gather data.

## 2.8 The Research Strategy:

#### 2.8.1 Qualitative Research

The world in which we live, strive, succeed, or fail are pre-eminently a qualitative world. What we act for, suffer, and enjoy are things in their qualitative determinations (Dewey, 1931, p. 93). The qualitative research strategy is the underlying research design. Even though our use of reports as secondary data is based on quantitative research, our primary empirical material is based on qualitative research tools. We are of the understanding that there is a distinction between these two strategies beyond the fact that quantitative employs measurements and qualitative does not (Bryman, 2016, p.31).

Regarding this thesis the research strategy was chosen quiet early in the process without much consideration since we had a fair idea of how we wanted to conduct this thesis. By choosing a

research strategy, it also allows one to know the orientation to the role of theory in relation to research, epistemological and ontological orientation (Bryman, 2016, p.32). We are interested in examining the issue from our informants' experience of their realities. This requires us to gain a deeper understanding of their practice, motives and relationship between the pupils and the teachers. There is therefore focus on how individuals narrate their reality (Kvale 1996). In the sections below the different qualitative methods such as interviews and observations which are used in gathering the empirical data will be elaborated.

#### 2.9 The Research Design

The research design provides the building blocks, systems and practices in conformity with scientific research work. It serves as the logical structure of the entire research process (David de Vaus, p 9). The comparative design, which involves studying two cases which are in contrast with each other and using more or less the same methods is applied (Bryman, 2016, p.64). Bryman argues that;

"Comparative research should not be treated as solely concerned with comparisons between nations. The logic of comparison can be applied to a variety of situations" (Bryman, 2016, p.66).

There are different types of comparative designs and we have chosen to conduct the cross-cultural approach (Bryman, 2016, p.66). The cross-cultural design is the most relevant for this thesis since we have two different empirical sites in two completely different regions of the world. The model allows us to compare findings about one country in perspective to a research of another country. This is based on reports which have proven that Ghana is one of the developing countries which scores low concerning Primary school-age children achieving minimum proficiency level in reading and mathematics. Empirical material from Ghana exemplifies the "global learning crisis" (WDR 2018). The reality of the 4<sup>th</sup> grade in Ghana raised a curiosity in us to investigate the corresponding situation in a Danish 4<sup>th</sup> grade using similar qualitative research methods. This type of comparative design is therefore not to be considered as a rigorous comparison between 4<sup>th</sup> grades in Ghana and in Denmark, but rather a method to draw attention to the respective teaching and learning environments. When this type of comparative design is applied in connection with qualitative research strategy, it can take the form of a multiple-case study (Bryman, 2016, p. 67).

multiple- case study occurs when there are more than one cases, or research sites being investigated just like in our situation. Writers in this field argues that the main essence of applying multiple-case study is that it improves theory findings (Bryman. 2016, p. 67).

Furthermore, the research strategy and the research design can be associated with each other to define the most typically applied study. For examples a combination of qualitative research strategy and comparative research design will often lead to ethnographic and qualitative interviews when collecting data. It is important to be aware that there is a distinction between research strategy and research design and that there is no perfect combination since some designs can entail multiple examples (Bryman, 2016, p.70).

## 2.10 Presentation of the Empirical Cases

#### 2.10.1 Justification for the Selected Cases

The decision to conduct the studies in at Bagabaga Annex A and Kildeskolen were randomly selected. In both cases the schools responded to our request to conduct studies with them. However, the choice of Ghana and Denmark is based on our share cultural heritage of Ghana and association with Denmark over 15 years. We also share interests in education and learning that are relevant to our study in MA Learning and Innovative Change. The researchers have deeper understanding of Ghana and Denmark and they both have preliminary understanding of the educational cultures and practices in these countries. In selecting an empirical site or a case to be investigated, it is important to seek for a place where much information is possible to get - information oriented selection strategy (Flyvberg, 2006, p. 230). This is when the objective of a study is to achieve the greatest possible amount of information on an identified case.

He argued that; "(...) the typical or average case is often not the richest in information. Atypical or extreme cases often reveal more information because they activate more actors and more basic mechanisms in the situation studied" Flyvberg 2006, p. 296).

The selection of these two empirical sites proved to be useful as they provided contrasting, yet also extra dimension of information which "ordinary" cases might not have. This approach falls within what Flyberg call critical case study. Critical cases identified by the characteristics of either "most likely" or "least likely" cases. These are cases that confirm or falsify propositions (Flyvberg, 2006, p 231). In the preliminary consideration, we presumed that Ghana would be most likely to fall within the learning crisis group and Denmark would be least likely.

#### 2.10.2 Collaborative Research Practice

Our prior understanding of both Ghanaian and Danish educational systems and practices make our understanding the empirical data in the collaborative process easily comprehensive. Even though the thesis had no intention to seek traces of Danish pedagogy in Ghana, it is important to appreciate the historical trajectory of Danish presence in Ghana. Aside the local knowledge of Ghana and Denmark, these two countries share a historical history that is interesting.

This is a collaborative research involving two researcher's cooperation to produce a product to create an understanding of educational practices in Ghana and Denmark. Collaborative learning allows us to inquire and co-learn (Dillenbourg 1999, p.1).

Inquiry approach agave us the tools to apply experiences, reflection and validation of realities (Dewey, 1906, p. 296). The first data collection was done through observation and informal dialogue without structured interview guide. The first visits produced experiences and ideas to be used in the further empirical data process. After the first two visits, a semi structured interview guide was designed based on what was observed to characterize the learning environment. The observations, experience and reflections were used to shape and design of the semi structured guide for formal interviews. The second data was collected in Denmark and relied on the semi structured interview guide. Nearly the same set of questions were asked the teachers and attention paid to their answers to same questions. We used same data collection techniques, observation and interview guides at the two empirical sites.

The data collections were done individually. The processes were made transparent via detailed documentation of the empirical data and through detailed discussions regarding the data, joint

coding the data and collective data analysis. This is done to make sure that both researchers get deeper understanding of the respective empirical sites and create shared understanding of the data and ensured shared ownership of the thesis.

## 2.11 Ghana - Sagnarigu Municipality

Sagnarigu Municipality is a densely populated area with an estimated total population of about 175,321 people covering an area of 201 km<sup>2</sup> and population density of 874.3/km<sup>2</sup> (Ghana Statistical Service, 2019). The Bagabaga Annex A School is located in the heart of Sagnarigu.

#### 2.11.1 The Bagabaga Annex School

The Bagabaga Annex is an old school located in the Sagnarigu Municipality of the Northern Region. The school is located in the Educational Ridge Area. This area is known for the cluster of schools. The Bagaba College of Education (BACE), The Tamale College of Education (TACE), The Tamale Senior High School, the Bagabaga Demonstration Schools and all the Ridge Schools are situated there. The Municipal Education Office is also located in the same area. One would expect that this would be one of the functioning schools due to its proximity to the educational institutions, but this showed up not to be the case.

The choice of the Bagabaga Annex was one of the many schools considered for the study. The original idea was to identify a rural school with the notion was that the learning challenges would be more visible in rural schools. Shani made a call to the Municipal Education Office for their advice regarding the school to do the study. Mr Zakaria Andani is the Deputy Director of Guidance and Counselling. After hearing the argument to select a rural school, he indicated;

"You know what, you don't need to leave the center of the municipality to get a school with learning challenges. There are cluster of school in the Ridge Area that fall within the category of schools you described" (Zakaria Andani, 2018, Telephone call, Annex 1).

The Bagabaga Annex responded via a call and the head teacher seemed very interested in the theme. The Bagabaga Annex Primary School and the Bagabaga Annex JHS share the same

premises, but they have two separate administrative systems. The focus of this study is on the primary school P4A. There are P4A and P4B with different teachers. A single teacher teaches all subjects in each of the class. Periodically, the teachers have interns from the Colleges of Education and the University for Development Studies who assists the teachers in their work. One of the informants, anonymously known as Issah was a student from the university and doing his teaching practice.

The GES is the educational policy actor in the implementation of state educational policies. The GES has defined curriculum and syllabus for basic schools. From September 2019 an entirely new curriculum has been developed (State of the Nation Address 2019).

#### 2.11.2 Physical Environment

The school is sited in an urban area but looks very deprived. The buildings look worn out. The immediate space around the school is kept relatively neat. However, uncollected plastic at refuse damps is visible few meters away from the school block (Observation, 2018, Annex I). The school yard is used by motorists especially bicycles and motorcycles. It looks dangerous especially during the break when the pupils play. The teacher explains that school has tried to block the passage to prevent motorcycle riders, but this does not stop them. The pupils however seem to be used to these bikes and are good at alerting their friends when bikes run through the compound. The sound from motorcycles is clearly heard from the classes. They also produce some dust as the ground is bare and sandy. The block in which P4A is attached has no electricity. There are broken chairs packed at the back of the classroom and many of the pupils have no chairs to sit on. The about a meter wide bench is used by three-four pupils. The pupils are squeezed together and have no free movement of arms and shoulders. Some of the pupils sit on the relatively dirty floor.

There are no toilet facilities for the pupils in the school. The only toilet facility is strictly used by the teachers. There is an old and dilapidated toilet facility that sends very strong smell to the school and temporarily closed. "*It has been closed down due to the health hazards it poses*". *We could hardly sit here when it was in use*" (Adisah, 2018, informal interactions).

The pupils use open spaces as toilets. As one of the pupils interacted with indicated *"We need toiles that don't smell – because we don't have toilet, we miss important things in the class. We go outside to the bush for toilet"* (P4A Pupil, 2018, Annex 1). The teacher's sit under a tree during break and for planning their teaching notes. They have no teacher's room.

#### 2.11.3 Teacher-Pupil and Pupil-Pupil Relationship

The communication in the class is generally one-sided communication. The teachers in P4A give instructions and orders to the pupils. The pupils seem to only give answers to what is asked. They mostly engage the teacher when they lodge complaints regarding dissatisfaction with their peers. That is when there is a conflict. The classes are noisy, and the pupils seem to be hard on each other especially at the blind side of the teacher. It sometimes seems as though there are no regulations regarding beating and use of abusive words amongst the pupils. The class teacher and interns all seem calm personalities, but they speak in ways that are more instructive rather than having interaction with the pupils. None of the three teachers was seen beating the pupils, but there is a cane in the class. Beating seems to be allowed in the school. A teacher in the JHS was seen beating a large number of the pupils. They had not swept the school compound as required of them. I got curious and introduced beating in my conversation with my respondent as seen under the analytical section. Form 2019, the Ministry of Education abolished all kinds of beating in schools (Ghana Graphic <u>www.graphic.com.gh</u> 2019).

The teaching in P4 is done in English, but the use of English as during interaction shows that the pupils don't really understand and speak English that well. It looks like a greater percentage of the pupils have little understanding of the English language. This is explained by the teachers as the reason why use of child centered approach or interactive dialogue can be a challenge (Observation Notes, 2019, Annex II). The GES language policy is that the pupils are taught in the mother-tongue or Language 1 (L1) in the lower primary that is P1 to P3. In the upper primary (P4 - P6), English is taught. Our observation, interactions and a test conducted indicated that P4A seem the basic English ability to be taught in English (Observation Notes, 2018, Annex 1).

#### 2.11.4 Learning Resource Center

The Bagabaga Annex A receives support from the Discovery Learning Alliance (DLA) and the Tzedek organizations. DLA and Tzedek are Non-Governmental Organizations (NGOs) that support the school increase learning outcomes. The support includes capacity building of teachers and provision of teaching and learning materials. The school has a Learning Resource Center (LRC) where children with learning difficulties get extra teachings after schools' hours. The LRC is resourced with an audio-visual device, a TV set and digital video device with recordings of learning materials to aid children's visualization of numbers and visual storytelling. Teachers are required to use the facility at least 20 times per term. As indicated by the school head; *"I expect that each teacher would have used the place at least 20 times"* (Mr Amuah, 2018, Annex I, p. 9). Since almost all the pupils in P4A have reading and writing difficulties, they are all required to join the extra teaching at the LRC. Teaching at the LRC is done after ordinary school hours. The LRC has specially designed curriculum and syllabus different from the approved GES'.

### 2.12 Denmark

#### 2.12.1 The Kildeskolen

In the process of finding empirical sites, emails were sent out to various schools in the Copenhagen Municipality. Our focus was to find a school which has different teaching approaches compared to the ordinary teaching and learning methods in the state public schools. Two schools replied and Kildeskolen was selected based on their interest in sharing their pedagogical ideas with us. The qualitative data through interviews and observations at the Kildeskolen is conducted by Thomas.

Kildeskolen is a "Free school"<sup>14</sup> located in Valby in the Copenhagen municipality. This school was founded in 1985 by a few parents who gathered to establish a school which could provide different teaching method than the one offered in the public elementary schools (Kildeskolen, 2019)<sup>15</sup>. It is said that the parents first of all wanted the teaching to be directed to individual pupil.

<sup>&</sup>lt;sup>14</sup> A kind of private / independent school which can choose to use an ideology of religious, political or pedagogical nature

<sup>&</sup>lt;sup>15</sup> <u>http://www.kildeskolen.dk/om-kildeskolen/generel-information/</u>

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This focus on the individual was to address the specific learning needs of the child so that fast learners wouldn't be slowed down, and the slow learners wouldn't be rushed through (Kildeskolen, 2019). The school's learning philosophy is built on these basic ideas and the curriculum of L. Ron Hubbard's study method. L. Ron Hubbard was an American educationist and the founder of the church of Scientology. The school makes it clear that; "*Our school is neither political nor religious. We are concentrating solely on creating an environment in which professional safety, cooperation; self-respect and respect for others are cultivated*" (Kildeskolen, 2019).

The school is licensed to use L. Ron Hubbard's study method. The pupils get orientation on the "learning how to learn" philosophy in 4<sup>th</sup> and 5<sup>th</sup> grades. The school has 190 students who are taught by 20 teachers on one track from Grades 0 to 9<sup>th</sup>. There is a class size limit of maximum of 20 pupils. An extra voluntary 10<sup>th</sup> Grade is offered base on need. The school is a member of the Applied Scholastics (applied study), an international organization designed to improve education and training around the world. It is also a member of the Danish Free School Association (friskoleforening, 2019), which provides advice and guidance to the free school's community in Denmark (Kildeskolen, 2019).

#### 2.12.2 Teacher-Pupil and Pupil-Pupil Relationship

The school allowed us to observe their teaching and learning environment. We gained an insight into how communication and interaction take place. The qualitative data is collected within a period of three days with teaching and learning in Danish, English and Mathematics lessons.

We observed two different teachers during these lessons and there was a noticeable difference between how the pupils were interacting with each other. During the Danish and English lessons there was order and the pupils obeyed the teacher - these two subjects were led by the same teacher. The Math lesson presented a different experience. The Math class was much more 'noise' in the class. The pupils were running around, and math teacher had difficulties in keeping them still. The observation during the Danish lesson presented an atmosphere of the learning situation characterized by mutual respect between both students and the teacher. Especially in the Danish lesson, the pupils were surprisingly calm considering that they are 4<sup>th</sup> graders. One of the reasons

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could be that my presence in the class as a visitor contributed to the pupils' politeness. The pupils' calmness could also have been based on their learning method which promotes individual process through checklist.

Nevertheless, the pupils conducted themselves well during the Danish lesson and it seemed like there was a clear agreement to how the pupils should approach their teacher. The way of interacting was more of pupils reaching out to the teacher than the other way around. The teacher sat mostly at her desk and waited for the pupils to come to her for feedback. She occasionally attended to pupils as well. It was clear that the pupils were self-driven and knew exactly their tasks during the lesson. The learning to learn method was seen in practice<sup>16</sup>. The pupils sat in groups of four and got along well - though some were ahead and focusing on their own checklist, they also had time to help each other.

The teacher had created respect and discipline between herself and the pupils which she revealed and explained that. "*I smile a lot and I am sweet, but I've made my boundaries and what I do not tolerate known to them. I think that is why they are calm during my lesson*" (Joan, 2019, Annex II).

The scene was quite different during the Math lesson was more of a loose "culture". The Math teacher also sat mostly at her desk waiting for the kids and periodically went around observing what the kids did. One of the pupils also went around in the class and asking her classmates if they need help. She explained that "*I have volunteered to be the "assistance teacher" today. We usually help our teacher since she cannot reach out to everyone that needs help. So today I have volunteered to help my classmates"* (Class Pupil, 2019, Annex II).

Generally we observed a system with ground rules to how to relate to each other. The order of doing things seemed familiar to teachers and pupils. This observation is significant seen in the context of democratic values of progressive education.

<sup>&</sup>lt;sup>16</sup> The school uses L. Ron Hubbards learning method (Learning how to learn) whereby they focus on the three learning barriers and also focus on pupils working according to their own pace with a checklist of exercises.

#### 2.12.3 The Qual Space

The Kildeskolen has the Qual learning space. Qual is from the word "Qualification". This is a place where all pupils can individually and at will or upon recommendation from the teacher seek extra support regarding their own learning. The teacher would send a pupil to the Qual when the pupil fall-out or when the pupils fails to follow active learning. The pupil can voluntarily opt to go to the Qual to seek support on a particular theme. Teaching is given to the individual pupil in the Qual. There is a different teacher at the Qual who provides support to the regular class teacher. The regular class teacher would normally send a note with the child going into the Qual to explain the support needed to the Qual teacher (Kildeskolen 2019).

#### 2.12.4 The Danish Free School

The "free schools" movement also known as "friskoler" in Danish was established on the ideals of N.F.S. Grundtvig<sup>17</sup> and Christen Kold<sup>18</sup> about 150 years ago (Friskolerne, 2019). It is said that the founders had the same perspective that learning takes place in many other places than in the books and in the school (Friskolerne, 2019). They had focus on lifelong learning and self-cultivation of *bildung* (Korsgaard 2018). They were of the belief that learning is the individuals' responsibility. There are about 650 free schools and about 110.000 pupils in Denmark (Friskolerne, 2019). The essence of these schools is to create an alternative to traditional state schools. They are all independent schools though they receive state subsidies and must meet some educational standards. The individual schools have the liberty to lean towards; an ideology of religious, political or pedagogical nature as the philosophical foundation for their school. This is the reason why there is a big diversity in free schools in Denmark (Friskolerne, 2019). It is compulsory to have a license to run a free school in Denmark.

<sup>&</sup>lt;sup>17</sup> N. F. S. Grundtvig, was a Danish pastor, author, poet, philosopher, historian, teacher and politician. He founded the Danish Folk High School tradition.

<sup>&</sup>lt;sup>18</sup> Christen Mikkelsen Kold was a Danish teacher, notable for creating the Danish Folk high school system, for non-degree education of adults.

# Chapter 3: The Empirical Data Collection Process

It is important to note that the data collection in the empirical sites did not occur simultaneously. The data in Ghana was collected in connection with Shani's stay in Ghana at the end of 2018. The data collection in Denmark was done by Thomas. The empirical data collected at the early stage of this thesis helped us to narrow our scope and to reflect over the data collection in Denmark since the experiences from the Ghanaian empirical site served as basis for the data collection in Denmark.

The experimental theory of knowledge, espoused the need to discern and describe knowledge identifiable to an object situation or event. He argues that knowledge must have its own characteristic features such as thunderstorm, the constitution of a state, or a leopard (Dewey, 1906, p. 293). But in order to associate knowledge in such concrete terms with a thing or with a person, the defined knowledge must have a definite empirical basis. It must be genuinely and empirically acquainted (Dewey, 1906, p. 293). The empirical data serves as the basis for this thesis and efforts are made to be as transparent and experiential as possible. Dewey further noted that:

To be acquainted with a thing is to be assured (from the standpoint of the experience itself) that it is of such and such a character; that it will behave, if given an opportunity, in such and such way; that the obviously and flagrantly present trait is associated with fellow traits which will show themselves, if the leadings of the present trait are followed out. To be acquainted is to some extent, based on prior experience, to anticipate". (Dewey, 1906, p. 296)

The use of double case study allowed us to use the experiences from one case directly to improve the process of the second case (Gustafsson, 2017, p 3). The thesis was motivated by our shared curiosity to understand educational prospects and challenges in Ghana and Denmark. The empirical data are of two major categories; data collected in Ghana in Denmark. We term this the primary data complement with secondary data. The primary data is gathered through interviews, direct and indirect observation in the respective research sites. The secondary data is in the form of documents such as books, reports, policy documents, and educational material such as

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curriculum and syllabus that in certain instances provided extra information for the thesis. Evidence for case studies may come from different sources: documents, archival records, interviews, observations and artefacts. The incorporation of multiple sources of data increases the quality of the research (Yin, 2003, p. 83).

Our inquiry into the learning spaces at the empirical sites were shaped and guided by our priori experiences (Dewey, 1906). The priori experiences helped in the interpretation of observations and the dialogue we had with the informants. What they did, how they did it and why they did what they did all mattered to the empirical data process. We entered the field with our own prejudices and ideas of how learning happens and sought to investigate the teaching and learning environments.

The reality of the empirical cases appears in the contexts of their activities or practices which became their habits of movement, interaction, and communication. From Deweyan perspective, everything in human culture or doings are social practices that need to be contextualized in order to be understood (Kivinen & Piiroinen, 2006, p. 305 in Brinkmann & Tangaard, 2010, p. 247). A way to understand this is to apply the biological senses to exemplify the epistemological and ontological understanding of reality (Dewey, 1938, p. 23).

#### 3.1 Respondents

Selected respondents and groups of children have been interviewed and their teaching and learning practice observed. Pseudo names have been provided for ethical reasons.

#### **Ghanaian Respondents**

Respondent 1: Madam Adisah. Adisah is P4A teacher. She is the main respondent.

**Respondent 2**: Mr Issah is a student-teacher on teaching practice and provides critical responses to practice of teaching and learning

**Respondent 3**: Mr Amoah provided responses as leader of the school.

Respondent 4: Mr Adams. He is a teacher in a parallel class to P4A.

Respondent 5: Selected children of P4A interacted with

#### **Danish Respondents**

**Respondent 1:** Joan is the class 4 teacher. She is the main respondent. **Respondents 2:** Selected children of Class 4 interacted with

## 3.2 Observation

The data collected via observations were based on ethnographic approach where we individually conducted the data collection in Ghana and Denmark. These observations were both formal and informal with different modes of documenting the data. Observation can be done formal or casual data collection (Yin, 2003, p 92). In The Ghanaian site, the formal form of observation was done by sitting quietly and observing the teaching and learning processes in the classes. The informal was done through watching the way the pupils interact and sometimes also just watching how the parallel class teacher interacted with the pupils. In Ghana, the observer would sit under a tree outside the class documenting whilst paying attention with ears and eyes wide open to follow what went on around him. The observations were made during teachings of many different subjects such as Environmental Studies, Mathematics, Creative Arts, ICT, English, and how the pupils interacted during breaks. We also observed examination situation.

The observations in the Danish school were mainly formal observations where different factors were considered and thematized. We focused on factors such as; the learning space, teaching and learning methods and interaction between teacher and pupil, interaction between pupil and pupil. The limited informal observations were made when the pupils went out to practice a task and also during their lunch break. These observations at the Kildeskolen were made during their Danish, Mathematics and English lessons. Details in the observations can be found under appendixes I and II.

### 3.3 Interviews

Interviews form part of the empirical data collection process. Steinar Kvale argues that qualitative research interview is a construction site for knowledge where there is an interchange of views between two people (Kvale, 1996, p 14). Different forms of qualitative interviews have all aimed

at obtaining nuanced descriptions of the realities of the respondents in the form or words rather than numbers (Kvale, 1996, p 32).

Interviews as conversation and dialogue shaped the process. The interviews were close to everyday conversation but guided by semi-structured guides (Kvale, 1996, p. 27). The interviewers made efforts to ensure that interviewees understood and answered the questions as clearly as possibly. We were mindful that the value of interview statements can in certain cases be limited in terms of their capacity to reflect reality as well as the real world of the interviewee's beliefs and attitudes (Mats Alvesson 2003 p. 169).

The interview processes in Ghana and Denmark both involves interaction between us, and the respondents and we reciprocally made efforts to influence each other's. This interaction process was characterized by positive feelings of a common intellectual curiosity and mutual respect (Kvale, 1996, p 35). In the Ghanaian case there were isolated cases where there were elements of provocation on "untouchable" issues involving defensive mechanisms. Themes such as beating the children, taking blame for the lack of learning of the pupil and accountability issues did not seem very pleasant. For instance, the question of beating pupils and taking responsibility for non-learning outcomes were not easy to discuss for fear of prejudice on the part of the interviewer. The teacher's, position that *"The cane is the language the children understand"* (Adisah, 2018, Annex I) was provocative. It brought about unpleasant memories from my own school days as a child in Ghana. In both cases, the interviewer and the respondents allowed professionalism to reign and the issues were discussed.

Interview method is not an equal enterprise between the actors (Kvale, 1996, p. 6). The unequal relationship between the researcher and the respondent matters in the interview process and it is incumbent on the interviewer to seek to level the field and reduce the unequal power relations. In this case, the teachers have worked in their fields for many years and serve as experts in the fields. They were the professionals, we were the students and helps reduce the unequal relationships. By applying the pragmatic approach, we did not come to the empirical sites as experts merely asking questions and seeking answers from respondents, but we actively engaged them through dialogue to gain insight into the respective learning environments. We were conscious of the difference in

cultural practices of the empirical sites and sought to respect and appreciate their way of life and actions. Even Though interviewer grew up in this area and understands the cultural dynamics, there were isolated instances of cultural gaps especially because he stayed outside Ghana for over 15 years. In the interview process, *"The sensitivity of the interview and its closeness to the subjects' lived world can lead to knowledge that can be used to enhance the human condition"* (Kvale, 1996, p. 11). The interviewer's ability to codify and understand the nonverbal communication signals and the "dos and don'ts" and to be as careful as possible and to read the signals quickly is significant to the interview process. As Kvale indicated; *"The interviewer should be conscious of the interview situation"* (Kvale, 1996, p. 35).

Dialogical process of interview fits into the participatory inquiry approach. Kvale (1996), metaphorically, terms this as the *traveler* interviewing process. It emphasizes the constructive and participatory nature of knowledge creation process and embodies the interaction with respondents in the form of conversation (Kvale, 1996, p. 11). This participatory approach creates an engagement process between researchers and educational practitioners. It places emphasis on conducting research *with* rather than *on* empirical sites (Ejsing-Duun & Skovbjerg, 2018, p. 3). We were the travelers, and *wondered* with the respondents (Kvale, 1996, p. 4). The enterprise was not only observation and experimental manipulation of subjects, but a combination of observation and active interaction with the respondents to understand the rationale for their actions and practices (Kvale, 1996, p. 11).

### 3.4 Interview guide

The interview guide was mainly used to guide us, to stay on track and ask the relevant questions. Interactions with respondents was however not strictly limited to the guide. We use both the unstructured and the semi-structured method. The initially interactions with Ghana were 'out of the blue' and based on an unstructured interview since the interviewer only had a list of topics also known as "*aide-mémoire*" (Bryman, 2016, p.201). They were based on what we observed and out of our pre-assumptions. This initial experience helped assess the situation and thereby contributed to the thematization and shaping of a semi structured questionnaire for the rest of the interviews.

Combination aide-mémoire and observation helped in deducing relevant research questions and increased the quality of the empirical data. The interview at the Danish school was carried out as a semi-structured interview whereby a series of questions were used to gain relevant responses. The semi-structured method allows the interviewer to ask further questions which are in accordance with the themes. Thematization helped to provide qualified empirical data. According to Kvale and Brinkmann thematization is significant because the better the person has prepared the interview, the higher the quality of the knowledge that comes from the interview interaction, and the easier the subsequent analysis of the data will be (Kvale & Brinkmann, 2009, p. 119).

## 3.5 Transcription and Documentation of Interviews

The conversations were documented through combination of traditional note-taking approach, audio visual recording and memorization. These methods have their own challenges, but a combination of the three increased the accurate documentation of the data. As Kvale noted, an interview may be recorded through the interviewer's reflected use of researcher's subjectivity and remembering (Kvale, 1996, p. 161). In our empirical data documentation process, we were conscious of our empathy and ways to memorizing what responses were given by the respondents. We used the notetaking, recording and memorizing at interchanging times. Various factors influenced which approach to use. These factors included how to ensure flow in the conversation and reduce interruptions, to ensure easy and natural conversation and to make sure that vital information got secured (Kvale, 1996, p 161).

The transcription of recordings and memory to texts is a challenging exercise. Transcribing has some methodological and theoretical challenges (Kvale, 1996, p 163). This means that transcriptions are not "rock-bottom" data of interview data. They are artificial constructions from an oral to written communication (Kvale, 1996, p. 163). This is manifested in Kvale's position that; "*Transcription involves translating form oral language, with its own set of rules, to a written language with another set of rules* (Kvale, 1996, p 165).

He further argued that transcripts are contextualized conversations, they are abstractions, just like topographical maps from original landscapes and are not copies of or representations of original realities, but are interpretative constructions (Kvale, 1996, p 165). It means that there are instances

in the reproduction of information where certain expressions are put in a much more comprehensive manner. In the process of transcribing an interview from oral communication to written, we encountered situations where the oral communications with certain "sayings" (Schartzky 2001, p 53) couldn't really make sense to a reader unfamiliar with the local context. In such instances, we interpreted the intention based on our own decision and judgement. We recognized that transcriptions involve a series of judgements and decisions that affect the validity and reliability of the research data, especially if, the rules of the research data transcription methodologies are not considered carefully (Steinar Kvale, 1996, p 163). The data collected were transcribed as accurately as possible. Few instances where language didn't make sense to us, we left them out or try to give it a contextualized meaning based on memory of the conversation we had. This is also why we made sure that the one doing the interview also did the transcription in order to reduce misrepresentation of the information collected. To reconstruct the data accurately especially when the memorization approach was used, we made sure that the texts were written immediately after the interview as a way to minimize losses of use useful data.

## 3.6 Coding of Empirical Data

"Meaningful categorization" of the empirical data shaped the process Kvale 1996, p. 204). Essential "codes" were used during the interviews, observations and interactions to gain broader knowledge within our selected research fields. The interview data were coded through the interplay between theory and the data, and key meaningful concepts identified. By applying abductive method, both theory and data influenced each other. It means that there have been back and forth interactions between theoretical conceptions and empirical data.

There are many ways of identifying themes in the empirical data, however Ryan and Bernard posit that one of the most common ways in which themes are identified are through repetition or rate of occurrence in the data (Bryman, 2016, p.586). We therefore focused on the number of times topics recurred again and again in interview transcripts derived from the data (See coding data, Annex III).

## 3.7 Reliability and Validity

When conducting qualitative research, it is important to consider reliability and validity in order to establish and assess the quality of the empirical data. However, questions have been raised concerning these criteria, especially concerning validity since it carries elements of measurement (Bryman, 2016, p.383). Reliability focuses on the question of whether the results of a study are repeatable. Dewey's philosophy of scientific reasoning in the context of his concept of "fallibilism" raises critical questions to issue of reliability. From this perspective, knowledge is not completely certain. We can never be certain that our previous patterns of actions will be appropriately applicable for future encountered problem-solving processes (Biesta, 2003, p. 13). It is further explained that men live in an ever-changing world where each practical situation is unique and require, in some instances practically new set of actions (Biesta, 2003, p. 13).

Notwithstanding Dewey's position, above, it was important for us to underline consistency with regards to our findings (Bryman, 2016, p. 42). When adapting reliability and validity in a qualitative research context, Bryman (2016) argues that '*reliability, validity and generalizability are different kinds of measures of the quality, rigor and wider potential of research, which are achieved according to certain methodological and disciplinary conventions and principles'* (Bryman, 2016, p. 383, Mason 1996: 24). Bryman (2016) uses LeCompte and Goetz's (1982) writing about external and internal reliability to clarify what they entail. External reliability deals with the degree to which a study can be replicated. They assert that it is impossible to "freeze" an ongoing process in a social setting and the circumstances on an initial study to make it replicable. A strategy to meet the requirements of external reliability includes replication of the first project through a similar social role and applying same qualitative research strategies and tools. Internal reliability concerns with the agreement made when there is more than one observer (Bryman, 2016, p. 384). We have made efforts to be as transparent as possible and documented the process in ways that other researchers would be able to follow the process we applied. We believe, same process with fairly same approach has the tendency to be reliable and generalizable (Flyvbjerg, 2006).

## 3.8 Critique of qualitative method

Just as qualitative researchers have pointed out critique of quantitative research, so have quantitative researchers built up critique of qualitative research. One of the basic critiques of the

qualitative research is the question of the level of subjectivity (Bryman, 2016, p. 398). From this position, qualitative findings rely too much on the researchers' subjective views about what is important and significant (Bryman, 2016, p. 398 & Flyvberg 2006).

As mentioned earlier our empirical data is collected individually at the empirical sites. This way of dividing the task of collecting data has an impact on data since we will be influenced by our own understanding and interpretations. However, we have tried to clearly document and make our findings transparent as important prerequisite for shared understanding especially since this is a learning study.

Another critique raised towards qualitative research is in relation to the difficulty of replicating a qualitative research. Flyvbjerg calls this a conventional misunderstanding (Flyvbjerg, 2006, p. 229). Quantitative researchers argue that qualitative studies are often unstructured and focus extensively on the researcher's subjective opinions. The critique is mainly based the fact that there are no standard procedures to be followed, therefore difficult to conduct a true replication. This is an aspect we could identify in our study since we collected data from two study fields at different periods. Same questions produce different answers based on realities, cultural practices and norms of the respondents' learning environments. The realities, beliefs and materiality at the different sites matter in the outcome of the finding (see table 1).

### 3.9 Secondary data

#### 3.9.1 Policy Documents

This study was initially provoked the World Human Development Report 2018 that pronounced a global learning crisis (WDR, 2018). This report and other policy documents such as the SDGs Report 2017, Ghana Educational Policy documents such as the ESP 2018 - 2030 and theoretical scripts have all formed parts of the secondary data. In the same manner, documents describing Danish educational systems have been used. Yin argues that the use of existing documents makes it possible to review the work repeatedly as it contains exact names, references and details of what has been reported on (Yin, 2003, p 86).

## 3.10 Ethical Considerations

The project reflected over the consequences of the project to the society and particularly the respondents, but also in relation to international standards. Transparency regarding the purpose of the study based on the European Code of Conduct for Research Integrity (ALLEA, 2017) and The EU General Data Protection Regulation (GDPR) are guaranteed.

Children were involved and efforts were made to respect the privacy and rights of the children. Permissions from particularly school leaders were sought before engagements with teachers and pupils and the identified classes. The pictures and recordings that were taken are meant specifically for this project and will be discarded after the oral examination in June. Pseudo names are used for all respondents. This is to protect the privacy of the respondents involves. Children were interviewed in groups. Interviewing children as a group gives them security (Livingstone, and Lemish, 2001, Graeme 2006).

Therefore the accompanying article to the thesis, which draws on the major findings will be shared with the schools. If the article appeases their interest in reading the document, we shall share that with them via emails.

# Chapter 4: Theory

## 4.1 Theory 1: John Dewey

This section presents the thoughts and reflections of the American Philosopher; John Dewey 1859-1952 (Cahn, 2009, p. 379). The original works of Dewey serves as the basis for this writing, but contemporary reconfiguration of ideas of Dewey is incorporated.

The major concepts presented here are under major headings; traditional and progressive education. Dewey acknowledged the tendency of mankind to think in opposite extremes by selecting words such as *either-or* to define practices or situations. Dewey contended traditional

and progressive education to be either-or affair (Dewey, 1938, p. 17). Dewey's critical view of mankind's tendency to think in extreme positions served as a guide and reflection regarding the application of the theories, especially seen in the context of the two divergent empirical cases. We do not seek to juxtapose the empirical cases in contrast to according to the empirical cases, but we simply seek to understand the learning environments.

#### 4.1.1 Traditional Education

Under the traditional educational perspective there are a set of rule of conduct and moral training components that are designed to reflect known *habits of action* (Dewey, 1938, p 17). The general pattern of school and mode of organization are distinctly separated from other social institutions. The mode of organization is the code of conduct and desired relationships between pupils-pupils and between pupils and teachers. Behavior is determined with the aims and methods of instruction with accompanying disciplinary actions (Dewey, 1938, p. 18).

The main purpose of education is to prepare the young for the future responsibilities and for successful adulthood. This is done by means of acquiring defined information and pre-defined forms of skills which comprehend the material of instruction. The subject-matter as well as standard of proper conduct is handed down from the adults. Past practices such as the attitude of pupils must, upon the whole be one of docility, receptivity, and obedience. Methods of instruction under this condition are generally guided by textbooks that contain "wisdom of the past" and teachers are mediators of the preparatory process. The adults seek to bring pupils into effective connection with the teaching materials normally documented in textbooks and defined subjects for the younger ones to learn from. In this context; *"Teachers are the agents through which knowledge and skills are communicated and rules of conduct enforced"* (Dewey, 1938, p.18).

The notion of traditional education is summarized to be the process of imposition from above and from outside the young person's world. It imposes adults' standards, subject matter and methods of teaching upon young people who are only growing slowly toward maturity. Under such circumstance there is gap between pupils and adults. The required subject matter to be studied, the methods of learning and expected behavioral norms is foreign to the pupils.

The quotation below sets the stage regarding the notion of tradition education.

The set of rules of standards are beyond the reach of the experience of young learners. This makes teaching and learning an art of imposition. Active participation by pupils in the development of what is taught is made difficult. The understanding of teaching and learning under such situation, is simply the acquisition of what is already written in books, the norms of practices that are stored in the heads of the adults (Dewey, 1938, p. 19).

In the nutshell the notion of traditional education is explained in the statement that the process of teaching and learning are cultural products of societies that presupposes that the future would be much like the past and the young are prepared in readiness for this "predictable future" (Dewey, 193, p. 19). Dewey talked of dualism of mind and body and how they jointly form the desirable learning situation. He argued that bodily activity in traditional learning situation is perceived as an intruder in learning where much focus is directed to the mind and mental activity. In this instance the "inactive" body leads the pupils away from the lesson with which his "mind" ought to be occupied creatively through arts (Dewey, 1916, p. 96).

#### 4.1.2 Progressive Education

Dewey raised concerns about ideas that are built on the criticisms and negations of existing ideas. Dewey's explained that there is always the danger in a new movement that seeks to reject the aims and methods of that which it supplements. He noted that the new idea may develop its principles in negative manner rather than positively and constructively (Dewey, 1938, p. 20). It is not out of place to state that progressive education is not an opposition to traditional education, seen especially from pragmatic point of view. The above position is interesting as it presents both critical and pragmatic position of education where knowledge means action embodying problem solving approaches. Pragmatism provides actors with intellectual resources to rethink and reconsider the purpose of knowledge, not just as scientific exercise, but as human action (Biesta 2003 p. 108).

In this context, theories and set of practices are dogmatic and must be based upon critical examination of its own underlying principles. Failure for self-critical reflections sets new problems which must be worked out on the basis of new experience (Dewey, 1938, p. 22).

The fundamental principle of progressive education is the relationship between the process of actual experience and education. If this fundamental principle must work, it must develop a positive and constructive basic idea of experience as the core of education. Dewey acknowledged that the general principles of progressive education do not solve the challenges of traditional education just by introducing new ideas into the learning space (Dewey, 1938, p. 21). From pragmatic point of view, it is not just enough to criticize, but it is essentially important to act and provide solution (Biesta, 2003, p.108). Deeper reflections over identified problems provide a potent instrument for dealing effectively with future challenges in the new practices (Dewey, 1938, p. 23).

Children do not naturally conform to the cultural practices and life-customs of the society in which they are born without guidance. However, guidance and direction have an element of control and must be tackled in ways that is mutually acceptable because control is not the same as compulsion (Dewey, 1916, p. 22). Since adults are not always conscious of controlling an action of others, they are likely to overdo controlling by exerting undue force. To achieve control action characterized by norms of reciprocity and respect (Putnam, 1993), educational actors need to design activities that include the needs and aspirations of the pupils. Such inclusive and participatory approaches allow them to acquire *"social sense of their own powers and of the materials and appliances used"* (Dewey, 1916, p. 22).

Dewey espoused a system of education that educated members with social and democratic values for a democratic community (Ryan, 1996, p 1059). This community is to be characterized by organic communication on free and equal terms as important prerequisite for social interaction. Such a democratic community is not to be limited to political elections and voting systems, but as the essence of the social interaction and cohesion (Ryan, 1996, p. 1060).

#### 4.1.3 Learning through Experience

Experiential learning posits that, everything occurs within a social environment. Progressive education emphasizes the freedom of the learner and the incorporation of the learners freely acquired experience in the learning process. Educational actors must reflect over the question of how the young become acquainted with the past and use the acquainted experience in ways that provide them tools to appreciate the present and prepare for the future (Dewey, 1938, p. 23). There is organic connection between education and personal experience and progressive educational actors must be committed to some empirical and experimental actions that provide qualified understanding and solution of learning (Dewey, 1938, p. 25). Education and experience cannot be seen as naturally equated to each other without empirical exploration over the specific experience that has positive effects on learning. This is because there are *mis-educative* and *educative* experiences. In certain instances, experience render pupils callous to ideas, loss of impetus to learn as a result of the way learning is experienced (Dewey, 1938, p. 26). Beating a child for giving a wrong answer might stop the child any attempt in the future for fear of being beaten. The experience as a result of the beating is a negative one.

The role of educators, in shaping the experience of pupils, is to arrange the experiences and engage pupil's activities in ways that promote desirable future experiences (Dewey, 1938, p. 27). The central concern of an education based on experience is to identify the kind of present experiences that live fruitfully and creatively in the subsequent experiences. This is known as "experiential continuum" and educative experience. The principle of continuity of experience means that every experience takes up something from past and reflected over to qualify the situation and reality of the future (Dewey, 1938, p. 35).

Progressive educators require an urgent and more pressing degree of understanding based on the philosophy of experience to facilitate progressive learning outcomes (Dewey, 1938, p. 29). Therefore he called for a coherent theory of experience as practice to guide the choice of rightful educational practices in order to give direction of the new education (Dewey, 1938, p. 30).

#### 4.1.4 Principles of Experience

The first principle rests on progressive education practiced through democratic deals where freedom and participation are key pillars. Methods and practices are humane and take onboard divergent views based on mutual respect. Attributing central role to humane practices and democracy is based on the general perception that democracy is the best of all social institutions and must form part of daily experiences of learning (Dewey, 1938, p. 34). Progressive education is built on the principle of humane and democratic methods of teaching and learning. The humane preference for experience is one that is attained through organic communication, mutual consultation, interaction and persuasion (Dewey, 1938, p. 34). Dewey explained that for education to accomplish goals for the individual pupils and for the society, it must be based upon educative experience (Dewey, 1967, p. 89).

Secondly, human habits form a core of human learning experience. It covers the formation of attitudes that are emotional and intellectual and forms part of human basic sensitivities regarding how to be responsive to life challenges. The basic characteristics of habits are that every experience enacted and undergone modifies the actor which subsequently affects and determines the quality of the experience. It is this experience that enhances education thus educative experience (Dewey, 1938, p. 35).

The principle of interaction provides space for interpretation of experience. Interaction assigns equal rights, objective to internal conditions as core factors in experience and forms interplay of what Dewey calls a learning situation. Free interaction through thinking and reflection is central to progressive education. This is because an experience is characterized by a transaction taking place between an individual and what is talked about. Active interaction provides measure of the educative significance and value of experience. It is the primarily the role of the educator to organize a learning situation where interaction takes place and to select objective conditions that support the needs and capacities of individuals at a given learning situation (Dewey, 1938, p. 45). The ideal learning situation involves an objective learning condition. This objective condition defines the educator's practices - what is done and how it is done, words spoken and the tone of voice. It also includes the interactive materials and total "social set up" of situations and of engagements. The objective condition is within the educators mandate to regulate and adjust to

create a desired learning situation (Dewey, 1938, p. 45). The principle of interaction posits that the teacher's failure to adapt materials to match the learning needs and capacities of pupils may cause a mis-educative experience, and thereby makes teaching and learning accidental (Dewey, 1938, p. 45).

Progressive education creates experiential situation that builds the capacity and prepares pupils to experience expansive quality to reflect growth, continuity and reconstruction. This is contrary to the subject-matter approach where subjects are designed to prepare pupils for the future which they later forget. Dewey noted that such is the situation where subject-matter was learned in isolation and put in a "water-tight compartment" (Dewey, 1938, p. 48). Pupil of this learning process will later wonder the whereabouts of subjects they learned earlier in their lives. This learning situation occurred because it was disconnected from the rest of experience that was not available under actual conditions of life. This learning situation is a deviation from the "laws of experience". From this position learning, regardless of how thoroughly engrained at the time, should give genuine preparation (Dewey, 1938, p. 48). Progressive education increases the learning situation above what can be measured through memory: It inculcates collateral learning and enduring attitudes and desired habits towards learning. These attitudes are what counts in the preparation of the future. Even though Dewey wrote this several decades ago, the relevance of the under the PISA regime of testing and measurements is significant. This position is also where Biesta's risk of education is relevant for reflections. For Dewey, "The most important attitude that can be formed is that of desire to go on learning" (Dewey, 1938, p. 48). The above discussion is also relevant to Yeast's saying that education is not about "filling a bucket but lighting a fire" (Biesta 2003, p.1). Education should prepare pupils for life and this is done if educators realise that;

"We always live at the time we live and not at some other time, and only by extracting at each present time the full meaning of each present experience are prepared for doing the same thing in the future" (Dewey, 1938, p. 49).

Dewey argued that this is the only form of preparation that is truly life preparation. This is because the relationship of the present to the future is not either-or affair and that the process of developing an understanding of the connection between the present and future is the attainment of maturity. Education as a growth or maturity should be an ever-present process of learning. It has to make sense to the learner and done in ways that is creative and artistic. And this brings the theory to a very interesting point where arts and creative are central in progressive education.

If education does not afford opportunity for wholesome recreation and train capacity for seeking and finding it, the suppressed instincts find all sorts of illicit outlets, sometimes overt, sometimes confined to indulgence of the imagination. Education has no more serious responsibility than making adequate provision for enjoyment of recreative leisure; not only for the sake of immediate health, but still more if possible, for the sake of its lasting effect upon habits of mind. Art is again the answer to this demand" (Dewey, 1916).

#### 4.1.5 Experience and Thinking

The nature of experience includes an active and passive element combined. Active experience is trying something directly in the context of experiment. The passive experience is undergoing an activity. Active experience calls for action and make us act upon it, do something with it and then we suffer or undergo the consequences. The implication is that experience is primarily an active-passive affair and not limited to cognition. There is an inter-reaction in the sense that; we perform an act and then it reacts on us in return. The connection of these two phases of experience determines the usefulness or value of the experience. Dewey emphasized that, to "learn from experience" is to make a backward and forward connection between what we do to things and their counter reactions. Simply participating in an activity does not constitute experience (Dewey, 2006, p. 157).

Experience is valueless without some element of thinking. Thinking process involves the conscious efforts to discover specific connections between something which we do and the consequences of our actions. Thinking increases the proportionate value of experience. It changes the quality of the experience significantly (Dewey 2006, p. 157). This is termed as reflective experience - thinking is a distinctive experience and thus creates room for the occurrence to be understood; actions explained; situations made reasonable. To fill the heads of pupils, like a scrapbook, with all manner of ideas passively, is not to think, but rather to turn the minds of pupils into pieces of registering devices (Dewey, 1938).

## 4.2 Theory 2: Gert J.J Biesta

Gert J J Biesta was born on in 1957 in Rotterdam, Holland. Biesta is a Professor of Public Education at May Mooth University (gertbiesta.com<sup>19</sup>). He has written extensively on pedagogy and education. He is noted for his critical view of traditional education and measurements and evaluations. His books; Beyond Learning – Democracy, Education for a Human Future (2006), The Beautiful Risk of Education (2014), Good Education in the Age of Management Ethics, Politics, Democracy (2010) etc are some of the few books he has authored. As can be deduced from the titles, these books take a critical view on education and the overly influence of policy influence on educational outcomes. Another central theme is democracy.

The empirical data provided concepts associated with education which is relevant to clarify through theoretical positions. **Teaching and Learning** are some of the key concepts that are sought clarified through Biesta's theoretical and conceptual lenses.

The modern conception of what it means to be human has become part of the ideas of education and normal human development. The ways to identify retarded cognitive and moral development, learning difficulties, and special educational needs have become central to the institutional landscape of education. Ideas regarding rational autonomy and critical thinking play a central role in critical progressive education, and they are seen as the motor for emancipation and self-realization (Mollenhauer, 1964; McLaren, 1997; Biesta, 2015, p. 35).

From Biesta's presentation, education (in terms of someone teaching and someone being taught) in the 21st century setup is associated with many risks. Biesta seeks to capture the essence of education through his four monographs; 'New language' of learning, (2006), the international testing industry of student achievement, (2010), the desire to create education without risk (2013), and 'a robust and explicit account on the importance of teaching and the teacher' (Anderegg, 2018, p 1 and Biesta, 2017, p. 8). Biesta also focuses on the crucial role and purpose of education. He

<sup>&</sup>lt;sup>19</sup> <u>https://www-gertbiesta-com.jimdosite.com/</u>

suggests that; "the question of purpose in education is a multi-dimensional question having to do with qualification, socialization and what I have termed subjectification" (Biesta, 2013, p. 128).

Education must not simply be limited to learning; it is essentially the "dutiful child" of Enlightenment. In this context modern education is;

"(...) the vehicle by which the enlightenment ideals of critical reason, humanistic individual freedom and benevolent progress are substantiated and realized" (Usher & Edwards 1994, p. 24; Biesta, 2015, p. 35).

The very rationale of the educational process "*is founded on the humanist idea of a certain kind of subject with the inherent potential to become; self-motivated and self-directing, a rational subject capable of exercising individual agency*" (Usher & Edwards, 1994, p.24;, Biesta 2015, p 35).

The modernity about this enlightenment process is that the purpose of education is understood as one of "bringing out" or making the individual able to realize the self-directed potential and become autonomous and able to achieve personal set goals (Usher & Edwards, 1994, 24–25, Biesta 2015 p. 35). Biesta draws reference to Immanuel Kant's definition of Enlightenment; "Man's release from his self-incurred tutelage through the exercise of his own understanding" (Kant, 1992, p.90; Biesta, 2015, p. 34). The analogy of postmodern education or what Dewey would call progressive education and the concept of enlightenment reflects the ideals of bildung and Grundtvig's School for Life (Korsgaard 2018).

From the perspectives above, the discussion presents the ideal educational purpose of not just preparing the pupils as robots and objects to learn what curriculum defines for passing exams, but to educate a whole human being who is a reflective thinker and able to think freely and independently bearing in mind that every situation desires a unique solution. This is an extension of pragmatic thought (Dewey 1938).

#### 4.2.1 Teaching

This section dwells on the understanding of teaching and the role of the teacher. Education according Biesta happens through communication. However it does not necessarily happen through spoken words or written words alone. Communication is an educational process whereby information is transferred from sender to receiver in an interactive process. In this process one cannot avoid the risk it entails. He explains that it is also important to define the role of communication in education - that even though education happens through communication, communication is not education (Biesta, 2013, p.44).

The latter view depicts educational communication as an open process and therefore as a process that always entails a risk. To take the risk out of communication would mean to turn it back into a form of transportation where communication would lose its dialogical potential, that is, its ability to do justice to all who take part (Biesta, 2013, p.43).

Biesta suggests that one should start from the assumption that teaching is a necessary component of education and that the teacher ought to bring practical experience to the educational setting. *That is why I will suggest that teaching cannot be entirely immanent to the educational situation but requires a notion of 'transcendence'* (Biesta, 2013, p.44).

The word "*transcendence*" in relation to education should be understood in the context of 'gift giving' situation. Biesta says that this should not be understood as the teacher having the power to give the gift of teaching. In as much as Biesta focuses on *transcendence* (experiences beyond the normal level), he also claims that the position of transcendence in educational situation leads to risks of turning educational authority into educational authoritarianism, which sets a barrier for what education aims to bring forth. The position of a teacher and teaching in educational setting is therefore not straightforward.

"*if teaching is to be more than just the facilitation of learning or the creation of learning environments, it needs to carry with it an idea of transcendence*" (Biesta, 2013, p.57). In this context the teacher has the formative role. The idea of formation is coined out of the context in which education is about a 'coming into the world'. That is, creating existential opportunities in which students can experience the freedom to grow up as subjects in this world (Biesta, 2018, p.

207). By implication, the teacher is not the *gift giver*, but part of the *gift giving* process. The job of the teacher in this process is neither a recipe-based didactic book nor an empirical study of successful teacher action. This is where Biesta comes very close to Deweyan ideal of education and presents a critical perspective on traditional education (Biesta, 2018, p. 209).

#### 4.2.2 Learning

According to Biesta, education has become problematic because the new language of learning constantly makes it difficult to understand what education is about (gertbiesta.com, Anderegg 2018).

"It is important in a time in which teaching has gained a rather bad reputation for being a matter of control and learning is seen as progressive and liberating; two views which I think are both problematic (gertbiesta.com).

Biesta's critical view on learning seems to suggest the new language of learning has become a buzzword. *"Everyone is talking about learning, and there is already a dangerous consensus that learning is central to any educational activity"* (Anderegg, 2018, p 1, Biesta, 2018, p. 207). He calls this *"learnification"* and argues that the meaning of 'learning' is concealed in an era of evaluations. *"This language was created in an 'age of measurement" and that learning is reduced to grades under a risk free process* (Anderegg, 2018, p. 1, Biesta, 2018, p. 207).

In the new language of learning, the theme of learning is often brought up as the central theme of education. Biesta however contends that learning should sometimes be the least thing educators should be concerned about. He has been more concerned about the discourse of learning. His argument is that, there should be a distinction between *"learning from"* and *"being taught by"*. They entail different views on learning. It is suggested that learning is something natural, in other words, something we cannot avoid doing and learning is something constructed (Biesta, 2013, s.59). He explained that:

"Learning is something constructed - that when we refer to something as 'learning' we are not engaged in a description of a naturally occurring phenomenon but are actually making a judgment about change" (Biesta, 2013, p. 59-60). Based on this he argues that the language of learning causes more harm than contributing to a helpful educational language (Biesta, 2013, p.60). The purpose of teaching and learning has shifted focus which has become problematic for the concept of education due the misleading conceptions of learning (Anderegg 2018).

The central point is the position that education involves risks and it is only when these risks are embraced that it becomes educational relevant and important (Biesta, 2013, p. 59).

The risk is there because, as W. B. Yeats has put it, education is not about filling a bucket but about lighting a fire. The risk is there because education is not an interaction between robots but an encounter between human beings. The risk is there because students are not to be seen as objects to be molded and disciplined, but as subjects of action and responsibility (Biesta, 2013, p.1).

Learning is therefore not to be perceived as something which has control over us but rather something, we should have power over. This critical angle on learning is Biesta's attempt to denaturalize the idea of learning whereby he makes an effort to take learning out of the domain of inevitability and necessity (Biesta, 2013, p.60). The language of learning makes us understand that we are in a learning age where one cannot be able to meet life challenges if one is not a lifelong learner.

In the learning age we are surrounded by claims that learning is something good and desirable, and often by claims that it is intrinsically good and desirable. (..)and therefore as something that should not only take place in schools, colleges, and universities but actually should go on throughout our lives, both extended in time (the idea of Lifelong learning) and extended in space (the idea of lifelong learning, that is, learning that permeates all aspects of our lives) (Biesta, 2013, p.61).

In this case the concept of learning according to Biesta raises critical question in relation to the discourse of learning, the power being exercised and the resistance towards the "demand" for learning. The notion of a language of learning as Biesta describes has also had some desirable consequences. These include the concept of 'learning' as a process term, and the other that sees 'learning' is an individualistic term (Biesta, 2013, p.63). Biesta concludes that the language of

learning has been helpful and empowered those at the receiving end where teaching was conceived in narrow, controlling, and authoritarian ways (Biesta, 2013, p.63).

## 4.3 Theoretical Critiques

Dewey's progressive education is criticized for patronizing capitalism. Cozzaralli (2017), in the article "A Marxist Critique of John Dewey: The Limits of Progressive Education" argues that progressive education emerged as a response to the excesses of capitalism, seeking to reform the system, but still along capitalist ideals where democracy featured prominently.

Dewey articulated and championed a new approach to teaching where the child should be at the center of teaching – the child-centered progressive education. Under this system education should be based on students' natural interests within the context of production, and teamwork (Cozzaralli, 2017). The learning environment should be based by democratic principles that should prepare students as democratic and social actors. Dewey is criticized for his failure to see that the modern education championed by capitalism is connected to modern forms of production (Cozzaralli, 2017). The central problem from this view is that progressive education is based on capitalist democracy and corporatization.

Progressive education is more an ideal type of thinking that is almost to implement in its entirety. Implementation of progressive education might take out the authority of the teacher which is needed in ensuring that all children peaceful learning environment. The two cases have bits of both progressive and traditional education.

Biesta's book "The beautiful risks of education" which is used in this thesis as the theoretical framework has been reviewed with critical eyes. Santoro and Rocha (2015) comments on Biesta's views and argues some of his statements. They begin by commenting this;

*``[education] is therefore, again, a dialogical process. This makes the educational way the slow way, the difficult way, the frustrating way, and so we might say, the weak way'' (Biesta, 2013, p. 3).* 

Santoro and Rocha asserts that this view of education does not promise any "results" and with regards to this they explain that the outcome of education can never be guaranteed. They also touch upon Biesta's view on teaching and the role of the teacher.

'We should understand the teacher as someone who, in the most general sense, brings something new to the educational situation, something that was not already there'' (Biesta, 2013, p.44).

In response to this, Santoro and Rocha write that it is far from controversial to assert that teaching is not simply a matter of someone inhabiting a new job title. They explain this view by writing that teachers need not to be human. Santoro and Rocha (2015) draw attention to Biesta's use of "who" in his definition of the teacher. Their response to this suggests that the teacher can be a "what" since the teacher can be a non-human entity.

# Chapter 5: Analysis

## 5.1 Analytical Approach

The analytical chapter is structured based on selected elements out of the coded and categorization of the empirical data (Annex III). There are five notable forms of analysis; categorization of meaning, condensation of meaning, structuring of meaning through narratives, interpretation of meaning and ad hoc methods for generating meaning (Kvale, 1996, p. 187). Even though pragmatism allows for the application of different tools, we applied the narrative approach bearing in mind that these strategies are not mutually exclusive.

We have in some instances applied hermeneutic ideals to interpret the narratives in the context of the research themes and draw conclusions there off. It means that we apply both the narrative and interpretive analytical approaches (Kvale, 1996, p. 193). This is by trying to structure the responses and draw meaning interpretation of the realities of learning environments. The elements that have fallen within the scope of the defined project objectives and theoretical choices serve as the

analytical elements of the thesis. The thesis is analyzed through and interplay between the data and the theoretical concepts.

The analysis is categorized under two broad themes. The first part concerns Dewey's progressive and traditional education. The second category addresses the Biesta's critical perspectives on education. These two theoretical positions are not mutually exclusive but complement each other. Major analytical elements are; organic communication, democracy and freedom, intersubjective interaction, materiality in the learning environments, play, teacher and parents' relationship, teaching approaches, cultural practices and experiences of pupils in the learning situation etc. The analytical elements both emerged from the empirical data and through the theoretical presentations.

# 5.2 Materiality Chart

Dewey's transactional and experimental approach involves an interaction between the mind and nature where human beings and the environment made up of natural, social and human action (Biesta 2003. p. 10). The transaction of organisms and environment is an active, adaptive and adjustive process in which organisms seek to maintain a dynamic balance with its ever-changing environment (Biesta, 2003, p. 10). The perspective of transactional framework presents knowledge as a function of human action, human interaction and communication in the learning environment (Biesta, 2003, p. 107). We interpret the above to mean that materiality forms an essential part of the learning environment and the use of material to enhance the transaction between pupils and nature has a function on the learning outcome.

The empirical data revealed the following distinct materiality in the empirical sites.

Table 1 Materiality Chart - own de
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Materiality	Kildeskolen	Bagabaga Annex A
Class size	16	36
Number of teachers	Subject teachers	Class teacher teaching all subjects

Number of subjects	10 subjects and "klassenstime".	8 subjects
TLM eg computers etc	<ul> <li>Whiteboard</li> <li>2 cupboards with books, color pen, pencils etc.</li> <li>Posters with numerical chain, word and figures, maps of Europe and the globe.</li> <li>A computer behind the class.</li> <li>2 ceiling fans</li> <li>A rectanguler table by the side where the pupil use modeling wax to spell words</li> </ul>	Textbooks, cardboard drawings, TV set and DVD at the LRC
	and be practical /active.	
Learning approach	Learning to learn approach - child centered - also through klassestime	Teacher dominance - one sided communication
Control system	Persuasions and periodically warnings (ground rules) democratic.	Adult standards and ethics and use of cane (beating) if necessary
Basic amenities: furniture toilets, water etc	Toilets, library computer room, playground etc	Broken furniture and some pupils sit on the floor, no toilet for pupils
Special initiative	Qual	Learning Resource Center

# 5.3 Dewey's Perspective on the 'New' Education

We initiate the analysis of this section with the pragmatic position that the use of progressive education is not an attempt to totally negate the notions and practices of traditional education. They

are not an either-or juxtapositions since none of the empirical cases perfectly fit into one category. It is however true, as will be shown, that each of the two cases are skewed towards either traditional or progressive education. The application of progressive education started as a responds to the challenges of educational practice that did not meet the ideals of modern education seen in Dewey and other progressives optic. Traditional educational practices were seen as imposition of adult standards and did not take into consideration the learning needs of pupils (Dewey, 1938, p. 17 - 20). However, Dewey raised concerns about new ideals that are built on the criticisms and negations of existing ideas. Such contrasting positions, he noted, might have challenges in standing on their own (Dewey, 1938, p. 20). From this perspective, we sought inquiry into the practices of both traditional and progressive education not only to show their strengths and weaknesses, but how they reflect the different learning environments.

### 5.3.1 Learning and Teaching Environments

Our inquiry into learning environments revealed that learning is divided into various subjects. The Danish School operated with 11 subjects whilst the Ghanaian school had 8 subjects. (Annexes I and II). The subject matter defines the context where bodies of information and skills formulated by educational authorities are delivered with predefined contents. Learning objectives in the two cases are seen to be defined by national curriculum.

In the Ghanaian context the role of the teacher in influencing what to teach and the textbooks to use is strictly defined by the predefined national curriculum, lesson plan framework and syllabus designed for each subject (Ghana Education Service, 2018). The following are examples of the prescribed framework of lesson plan:

"We have a standard lesson plan frame that all teachers use" (Adisah, 2018, Annex I, p 1)

1. Time/Duration	
2. Date/day	
3. Aspect/Topic/Subject	
4. TLMs/ teacher/learner/Activity	

#### Tabel 2 GES Lesson Plan Frame

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5. Core Points	
6. Evaluation	

The teacher explained that, the only prescribed text books are to be used as reference books and for teaching. Beside the government approved textbooks, the Aki Ola Series has been recommended for use. The teacher is to prepare daily lesson plans, but the standard practice is weekly due to the workload (Adisah 2018, Annex I,). The Ghanaian teacher did not seem to have the trust of the public school systems where the teacher had the honor to decide what kind of text books to use as reference book and for the pupils' own work. The lesson plan framework, as shown in table 2 above, leaves a rather limited room for the teacher's influence, at least regarding how to structure the work. Yet the teachers lacked the needed book to do their work.

The Danish teachers seemed to have some influence in the learning situation and have the freedom to determine the kind of reference books to use. The freedom of the learning space at the Kildeskolen seems to give room for teachers and pupils to influence learning approaches.

" Jeg synes man har mere medbestemmelse i forhold til hvilke materialer man vil bruge. Og hvordan de egentlige skal præsenteres for klassen. Der kan man også bygge et system op der både kan være til individuel undervisning men også til klasseundervisning "<sup>20</sup> (Joan, 2019, Annex II p. 10).

The fact that the teacher has a say in what to teach reflects the idea of democracy and education (Dewey, 1938). The teacher and the pupils' collectively influence of what is learned and how learning occurs in the teaching and learning process is significant. This freedom and influence in our interpretation seems to be a source of motivation.

The use of traditional subjects as determination of what to learn is one of the areas where Ghana and Danish education comes closer to the idea of traditional education even though there are varying degrees to which they can be termed traditional. Our interpretation is that textbooks

<sup>&</sup>lt;sup>20</sup> I think one has influence regarding the kind of material to use. And how to present them for the class. Through that one kan build a system that is both suitable for the individual pupils and purpose of class teaching op.

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contain knowledge and wisdom of the past with the aim to transmit the existing knowledge to the new generation. In this perspective there are a set of defined rules of conduct, standard moral training components that are designed to reflect identifiable *habits of action* in the society (Dewey, 1938, p. 18).

The number of large subjects to be taught by the Ghanaian teacher alone seemed beyond the ability of a teacher. Under such situation, much room is left for proper interactions. The teacher teaches 8 subjects and serves as the class teacher.

As a class teacher, you are forced to teach subjects you are not trained to teach". You teach in ICT, yet there is no single computer in this school. The Schools often have students from the University for Development Studies (UDS) and Bagabaga College of Education (BACE) and they help teach the subjects that I am not comfortable with (Adisah, 2018, Annex I, p. 1).

This teacher's explanation that she is forced implies that the work is handed down from educational authorities thereby leaving no room for her own influence. The situational analysis of the Ghanaian learning space reflects the traditional definition of education. Under this context education is to prepare the young person for the future based on predefined adult and textbooks contents. This is done by means of defined information and predefined forms of skills, and methods of instructions that are generally guided by materials such as textbooks that contains "wisdom of the past". Dewey noted;

"Teachers are the agents through which knowledge and skills are communicated and rules of conduct enforced" (Dewey, 1938, p. 18)

Our inquiry revealed that, the Ghanaian teacher has the freedom to determine which method of teaching to apply. The teacher can determine to use the child centered approach or the lecture method; use improvised teaching and learning materials or teach without TLMs. The teachers explained the lack of TLMs and textbooks and this affects the learning outcomes of the pupils. She says that:

The lack of textbooks is also a big challenge. We have not received textbooks from the Ghana Education Service (GES) for the past 5 years. The books we have are worn out. We

The situation above is provides deep thoughts for reflections in the sense that GES restricts use of other reference books, yet fails to provide the needed books for the teachers and pupils to use. Lack of materials seems to define the learning challenges as explained by the teachers.

I p. 2-3).

From pragmatic perspective, learning means active participation and engagement between human action and nature. The lack of TLMs can be said to reduce learning to passive action and making the pupils spectators (Brinkmann and Tangaard, 2010, p.245). This is based on the transactional framework which presents knowledge as a function of human action, human interaction and communication (Biesta, 2003, p. 107).

In the Ghanaian learning environment, another significant observation made was the less use of the external environment in the teaching and learning process. Our inquiry revealed less interaction and use of tangible learning materials. The language of teaching is in English at the upper primary school (Ghana Education Service). Many of the pupils through interaction did not seem to have English language skills to allow their active participation in the learning process. This is problematic seeing that, the perspective of transactional framework presents knowledge as a function of human action, human interaction and communication in the teaching and learning process (Biesta, 2003, p. 107).

The teacher indicated that the child-centered approach embodying free interaction between teacher and pupils and between pupils was used in teaching, but that the language barrier affected the efficient use of the interactive approach. The teacher states that:

We use the child centered approach and the lecture method. The lack of TLMs make the pupil centered approach very difficult and thereby mostly use the lecture method. It is also a problem when English is used as the medium of instruction. That makes the child centered

"The 21st Century Learning Environment – disparities, challenges and prospects" MA in Learning and Innovative Change – Aalborg University, Copenhagen Thomas Sam-Ansah & Shani Mahama approach and interactive teaching hard. The pupils become active when the Local language (L1) is the teaching language (Adisah, 2018, Annex I, p.3).

The language presents another example where standard rules from above might not make sense at the point of implementation. The teacher in this context could speak the local language and periodically explain certain key concepts to the pupils, but in country of about 47 languages, there can be situations where either the teacher or some of the pupils might have a shared local language (Observation Notes, Annex I).

Dewey explained that the ideal learning situation involves an objective learning condition. This objective condition defines the educator's practices and it includes what is done and how it is done, words spoken and the tone of voice. It also includes the interactive materials and total "social set up" of situations and of engagements. The objective condition is within the educators mandate to regulate and adjust to create a desired learning situation (Dewey, 1938, p. 45). The materiality and the teaching practice in Ghana seem challenged seen in the context of Deweyan notion of objective condition of learning environment. The limited use of TLMs and foreign language impeded active interaction and participation by the pupils. It allowed much more pedagogy with words rather pedagogy without words (Tangaard and Brinkmann 2010, p. 255).

Interaction, Dewey noted, assigns equal rights and provides space for interpretation of experience. Interaction also promotes thinking and reflection that are central to experiential learning. We deduced that without interaction much of what is learnt is imposed because it is based on the teachers' judgement. Under the circumstances where much of what is learnt is top-down and from the teacher to the pupils and based on textbooks reflects what Dewey calls enforcement of adult standards (Dewey, 1938, p. 20). Under such circumstances, teachers serve as agents that transmit knowledge and skills as well as enforce standard and rules of conduct of the society (Dewey, 1938, p. 18). Our inquiry revealed a gap between learners and teachers and made much of what is learnt as abstract. With regards to this one of the teachers expresses himself like this;

All that they have been doing is the teacher centered. They feed them (pupils) with information. At this level the pupils need things that they can play with – they need hands

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on activities and guided instructions, but all that they do is feed them with information, they will come stand talk, talk and go. That is what they have been doing. They (teachers) say it is because of inadequacy of teaching and learning materials, even though we are taught the teacher is supposed to improvise TLM (Issah is a student teacher at the school).

The teachers did not seem to use the external environment for teaching and teachers hardly take pupils out of the class to experience and learning at first hand. It was observed that a teacher made frantic efforts to draw "clean environment" to explain the concept of sanitation. Observing the situation, we noticed pupils trying to understand the issues at stake. In the same manner, the teacher used drawings on the board to explain 'computer mouse'. These made the concepts abstract and the pupils looked as if they had difficulty in making sense of the drawings. It seemed hard for many of the children to ascertain what these drawings are in reality since many of them didn't seem to have seen a computer mouse before. The teacher raised concerns regarding teaching Information Computer Technology (ICT), with no computers in the school (Observation Notes, 2018, Annex I). Our inquiry revealed that much of the content taught in P4A was abstract and outside the level of understanding of the pupils.

Applying pragmatic inquiry, we sought to understand the causes of less use of practical TLMs to enhance learning by doing (Dewey, 1938). The school leader explained that;

"It might be because they are used to the traditional way of teaching – you know teachers are such that they always think moving (outside the classroom) and coming in is waste of time and some of them also feel reluctant to bring the pupils to children to the center (LRC)" (Mr Amoah, 2018, p. 9).

The Ghanaian teacher, as explained above used their physical classes much more and did not really take the children outside to transact with the environment as might be required, especially that they lacked TLMs. We wondered why they don't take the pupils out for instance if they were to teach about plants and flowers. The teacher explained;

"Because we do not have flowers here, we have a problem showing them that. In that case, we ask the pupils to bring flowers from home. We can also draw flowers. We can also take them to the resource center to show them videos of plants and objects" (Adisah, 2018, Annex I).

We interpret the less use the external environment as missed opportunity by the teachers to take advantage of the pupil's experiences from home and the external environment. Educators have a role in shaping the experience of pupils, and to arrange the experiences and engage pupil's activities in ways that promote desirable future experiences (Dewey, 1938, p. 27). The principle of interaction argues that teachers' failure to adapt materials to match the needs and capacities of pupils may cause a mis-educative experience, and thereby makes teaching and learning accidental (Dewey, 1938, p. 45). The Ghanaian educators did not take the chance to use the pupils' experiences and the rich community practices especially regarding creative subjects. They presented themes in ways that made them more theoretical rather practical as a way to make teaching and learning more handy and actionable (Observation Notes, Annex I).

We observed a gap between pupils and teachers due to by the language barriers, less use of practical TLMs, the less use of the environment outside the class and the complexity of the lessons. This seemed to make the pupils bored, absent minded and could not really answer the questions from the teachers. The teacher explained that lack of knowledge in some of the subjects they are forced to teacher was the challenge.

As a class teacher, you are forced to teach subjects you are not trained to teach". You teach in ICT, yet there is no single computer in this school" "Imagine teaching eight subjects and managing over 40 pupils. It is not possible and so GES must do something about the-jackof-all-trades mentality. To teach and mark exercises of over 40 pupils daily is simply not possible (Adisah, 2018, Annex I, p. 7).

The "jack-of-all-trades syndrome could be one of the major cause of the 'learning crisis' at the Ghanaian case. The teacher explained; "*In fact only 4 of the pupils can read as they are required. I will say that, 90% of them cannot read and write as expected of them, at this level of their education*" (Adisah, 2018, Annex I, p. 2).

Experiences and practices from the Kildeskolen show different experiences. Indeed they also have challenges. As the teacher explained, it will be hard to find a school without a number of the pupils with learning difficulties. But to have about 90% unable to read and write in a class is indeed a reflection of learning crisis that requires urgent action.

"Der vil altid være nogen der er lidt bagefter. Der er ikke to børn der er ens. Der vil altid være nogen der er lidt bedre til matematik og måske dårligere til dansk eller omvendt, og sådan vil det jo altid være men vi får dem med"<sup>21</sup> (Joan, 2019, Annex II, p. 13).

She also stated that they have devised pragmatic ideas to address the learning challenges. These include reading courses designed to address the learning challenges.

"Vi har også nogle læsekurser som vi bruger rigtig meget når de netop skal lære at affotografere teksterne og ordene. Og det kører meget på at det er med deres egen lyd i ordene"<sup>22</sup> (Joan, 2019, p. 13).

Another factor in the Ghanaian learning crisis is the rate of changing teachers. The school has a system where the teacher is a permanent class teacher. She is the grade 4 teacher and only teaches the same pupils whilst they are in the 4<sup>th</sup> grade. The pupils get a new teacher every year as they change classes. It means that the teacher at grade 4 teaches the pupils for just one year. This system doesn't seem to allow the teacher to get to know the pupils and their learning history and thereby make the application of the pupils' experience in the learning situation challenging.

The teacher centered approach limits the inclusion of the child's experience into the learning process. Progressive education emphasized the freedom of the learner and the incorporation of the learner's freely acquired experience. Educational actors are required to reflect over the question of how the young become acquainted with the their past experiences in ways that provide them tools to think, reflect and appreciate the present as important ingredient in readiness for the future

<sup>&</sup>lt;sup>21</sup> There will always be some that are behind. There are two children that are alike. There will some that are better at mathematics og may be bad at English or the vice versa, and that will always, but we get them along

<sup>&</sup>lt;sup>22</sup> We also have learning sessions that we use very much when they have to learn to take picture texts and words. And it concerns a lot the idea that it is about their own sound in the words.

(Dewey, 1938, p. 23). This is where the Danish model of the same teacher teaching same group of pupils for a number of years makes most sense.

### 5.3.2 Measurements and Home Support

Another area where both Ghanaian and Danish schools shared basic features of traditional education was seen in the testing and examination of the pupils. The Ghanaian teachers revealed that teachers are required to give at least three exercises a week in English and Mathematics (Mr Amoah, 2018, Annex 1 p .7). The large number of subjects with prescribed number of testing makes the job of the teacher, especially in large class sizes difficult. The Ghanaian learning space is characterized by what is termed as continuous assessment through testing and examinations. Implying that much of what is learnt is assessed through testing and examinations even at early ages of the pupils and the test results are compiled over the pupils' school time (Observation Notes, Annex I). The examination forms part of the pupils' terminal score and continuous assessment. They explained that end of term examination takes 70% of the total score. The class tests and exercises take 30 percent. What is interesting is that the testing culture seem to me summative rather formative. We reach position because of the lack of teacher pupil engagement on the development of the child's, social development. This is because there is focus on results rather than the pupil's education (Annex I, 2018, p. 1). The testing and exams is used as a control measure by educational authorities over teacher's work. Mr Amoah Noted:

Do what you are supposed to do. Write your lesson notes, give the number of exercises. I don't have to come to class and you have not done the number of exercises per term. So, if I come and check and you (teacher) are not pulling up (fail to meet the required number), I have to put it in place (make sure it happens (Mr Amoah, 2018, p. 10).

Much of the tests and exams are based on cognition and memorization (Dewey, 2006, p. 157). During the observation, we observed the examination week. An examination in Creative Arts was observed. From pragmatic perspective where knowledge means action (Dewey 1931, p. 299, Biesta 2003 p. 108), one would expect that the pupils would have a kind of a practical session where the pupils create and perform arts with their hands.

The Kildeskolen practiced a system where the pupils have to pass a test to progress to the next learning theme. We observed that, the pupils come to the teacher's table when they're done with a set of tasks and need feedback on them. They'll either be asked to read out loud, translate what they've done in Danish to secure that they've understood everything. Every pupil is tested before they can move on to the next task (Observation Notes, 2019, Annex II, p.21).

Pragmatism contends the separation of theory and practice and calls for knowledge beyond action (Dewey 1931, p. 299) where reflection, thinking and the integration of mind-body in action (Dewey, 1931, p. 304) are integrated in the learning experience. This was not the case in the Ghanaian learning environment. The pupils were asked theoretical questions rather than practical and activity based. Some of the questions were;

- 1. Weaving materials that are ready to use are call .....
- 2. Write down three materials used in weaving .....
- *3. ....are the horizontal stands used for weaving around the stakes* (Observation Notes 2018).

They were required to reproduce what has earlier been transferred by teacher. From Dewey's perspective, this memorization approach requires pupils to save what is learnt in "water-tight-compartment" (Dewey 1938, p. 48). He explained that pupils of this learning approach would later wonder what happened to what they 'learnt', because they would have forgotten them. This form of learning is provides *mis-educative experience*. It occurs because what has been learnt is disconnected from educative experience and not available under actual condition of life. Progressive education increases education above what can be measured through cognition and memory and desired attitudes towards learning are not achievable through this form of learning (Dewey, 1938, 48).

We observed that many of the children could not read and didn't really understand the sentences written on the board. The teacher read them loud (Annex I, 2018). Many of the pupils presented almost blank papers, apparently due to inability to reproduce what they were required to memorize. The exams situation confirmed the reality that over 90% of the pupils in the class fail to meet the minimum proficiency levels (Observation Notes).

What we find interesting are the different explanations to the learning challenges and what kind of approaches used by the teachers to address the challenges. In the Danish school only a few of the pupils have insufficient reading ability whilst in the Ghanaian situation only a few of the pupils in the class are able to read and write as required. The Danish teacher seem to simultaneously take responsibility for learning challenges and at the same time reflects over the role to play in designing system of learning to address pupils learning deficiency. She explained;

Altså der kan være mange ting til det, men vi ved i hvert fald, at vores værktøj virker, hvis alt andet er i orden. (...) hvis vi lærer lydene og sætter bogstaverne sammen med de lyde så kan de. Det er meget simpelt, men der kan være meget mere til det jo<sup>23</sup> (Joan, Annex II, p 14).

She also explained that;

Det er også et samarbejde mellem lærer og elev. Hvis kemien ikke er i orden, så bliver det svært at lære et barn noget. Hvis jeg bliver uvenner med et barn eller de synes jeg er dum eller et eller andet, så kan det være svært at lære barnet nogle ting<sup>24</sup> (Joan, 2019, Annex II, p. 16).

In the Ghanaian case, the reasons given for learning deficiency were mainly structural and issues of materiality. It also included the lack of home support. The teacher did not seem to see her own role in the learning difficulties. The class teacher expresses herself like this;

<sup>&</sup>lt;sup>23</sup> There can be several things, men we know in anycase, that our tools work, if everything is in order. (...) if vi teach sounds and puts alphabets together with the sounds, then they can. It is very easy, but there can be many reasons in it (learning challenges).

<sup>&</sup>lt;sup>24</sup> It is about cooperation between teacher and pupil. If the chemistry isn't in order, then it will be difficult to learn something. If I become unfriendly to the child or they think I am silly or something like that, then it will be difficult for the child to learn some things.

I think the home is the major challenge. Pupils come back to school with homework they are supposed to do at home. Parents don't support the learning of their children. They don't seem to care about that. Sometimes we invite them for Parent Teacher Association (PTA) meetings and they don't come. Parents don't seem to have the interest of their children's education. A parent might not be able to tell which class the child is in. They ought to know which level and exactly which class, but unfortunately there is no cooperation between teachers and pupils regarding the learning needs of the children. The last time we called for a PTA meeting no parent came (Adisah, 2018, Annex I. p. 2).

Regarding the need for parental and home support, the Ghanaian and the Danish teachers have a shared position. The role of the home is central to learning outcomes of pupils. The Danish teacher explained that, the home and the school have a collective responsibility.

<sup>25</sup>Det er vores ansvar, men det er også forældrenes ansvar. Vi kan ikke hjælpe et barn, hvor der ikke bliver bakket op fra derhjemme. Altså, forældrene har en stor opgave og de skal hjælpe os med at få et dygtigt barn" (Joan, 2019, Annex II, p. 15).

The normal way of engaging parent at the Bagabaga Annex A is mainly through the general school meetings known as the Parent Teacher Association (PTA) meetings where parents of the school are invited to a general meeting to discuss general issues affecting the school and not particularly about the individual pupil. Our interpretation of this meeting-culture is that these meetings are often used to address materiality challenges, rather than learning challenges. It was not visibly clear how the teachers engaged individual parents regarding the education of their children. The teacher explained that, there are no class level meetings and no meetings such as parent-pupil-teacher.

<sup>&</sup>lt;sup>25</sup> It is our responsibility, but it is also the responsibility of the parents. We cannot help a child where there is no backing from the home. So, the parents have a big task and they have to help us to get a clever child.

"It is difficult to engage parents. If you invite parents to the school they will not come. We have given up engaging parents. So no, we don't engage the parents" (Adisah 2018, p. 5)

From pragmatic perspective where action matters, a way to increase parental participation and learning outcome was deemed essential. Pragmatic ideas could center on class based parental meetings. Some form of tripartite meetings embodying the teacher, the pupil and the parent(s) - teacher-**pupil**-parent. This could allow for deeper deliberations between the learning needs of the individual pupil.

At the Kildeskolen, the role of the home is used effectively in the learning situation. The FERGO model where the home becomes a central actor in the learning process is implemented (Annex II, 2019, p. 14). Under this situation the teacher and parents will agree on identified learning needs and seek the support of the home in addressing them. It is cooperation between the school and the home.

Dyslexia was explained as a potential reason for the learning challenges. "*The reasons why many* of the pupils don't understand what is taught is because of dyslexia" (Issah, 2018, Annex, p. 1).

This raised some questions regarding how a whole class of about 47 pupils would have majority of them suffering from dyslexia. Further inquiry through engagements with the respondents revealed other factors that might contributes to the learning difficulties.

### 5.3.3 Practical Learning Situations

Both Denmark and Ghana provided alternative ways of addressing learning challenges. In the Danish, case, the "*Klassenstime*", where the pupils had the chance to take part in discussions regarding issues of interests and relevance to the social cohesion of the class was interesting. This is where pupils were given free space and time to speak regarding how to among others increase social cohesion in the class and address issues of relevance (Annex II, 2019). They also have the *Qual* which provided the possibility for the pupils' own learning. Pupils can go to the *Qual*, which is a learning center to seek individual teaching. The *Qual* as well as the *Klassenstime* gave some

room for the pupils to influence what they learn. The teacher at the *Qual* is not the regular class teacher. The Kildeskolen used the *Qual* to lift the level of individual pupils and so support is only given to individuals and not groups. The teacher explained that;

(...) når de begynder at halte lidt og knække lidt, og bliver sure og de gider ikke og går ud ad døren så ved vi præcis "aah", de er ramt ind i noget her og det skal vi have håndteret. Også kigger jeg på, hvor det går skævt hen(...). Også kan jeg sende dem op i "Qual" og skrive et lille notat og sige at det har et lille problem og om de kan hjælpe med det. For det får jeg ikke tid til i klassen i timen<sup>26</sup> (Joan, 2019, Annex II p. 10).

From the above we interpret that the Danish teachers work together to address the learning challenges since the teachers in the Qual cooperate with the regular class teachers and provide extra support. The class teacher knows all the pupils, their strengths and weaknesses and can consider the kind of extra support needed to attain desired levels. The underlying teaching method is termed as *learning how to learn* and thus reflect what Dewey termed as formation of habits towards learning. Dewey noted that progressive education increases the learning situation and enduring attitudes and desired habits towards learning. Dewey explained that, the most important attitude that can be formed is that of desire to go on learning (Dewey, 19938, p. 48).

(...) vi bruger det Qua) og det er guld værd. Nogle (af børnene) spørger endda selv om de må gå i Qual; "Må jeg gå i Qual og lave mine ting"? Ja, det må du da gerne. Men det er ikke altid der er plads, men så foretrækker de selv at sidde der fordi der er færre børn, er der måske lidt mere ro endda i forhold til det de nu laver i klassen. Men så foretrækker de selv at gå deroppe for så har de hele én de ved de kan spørge til et eller andet og få hjælp til (Joan, 2019, Annex II, p.16).

<sup>&</sup>lt;sup>26</sup> When they begin to fallout, and become agitated and don't really want to participate and leave the class, then we know exactly that they have been hit by something that calls for intervention. In that case, I look into what might have caused the agitation. In that instance, I send them to the "Qual" with a little note explaining the problem and seek assistance to address the situation as, I would have the time to address the problem.

From the above, it can be seen that, the Danish teacher appreciates the teaching and learning method used by the school as it has the ability to cater for the learnings needs of all pupils in ways that leaves none of them backward.

"Jeg synes at den metode vi bruger her – den er rigtig god fordi man kan gå inde på det enkelte barn og finde ud af hvad for et niveau de ligger på også kan man bygge barnet op derfra, så de ikke hele tiden skal følge klassen, også bare gå frem. For så vil man efterhånden tabe nogle af dem fordi de er ikke lige alle sammen"<sup>27</sup> (Joan, 2019, Annex II, p. 10).

The Learning Resource Center (LRC) in partnership with other educational stakeholders from the civil society provides extra learning to pupils at the Bagabaga Annex A school. The LRC did not really provide something alternative to the normal teaching and learning. In the LRC there are audio visual devices to play recorded videos about learning in many subjects. Group teaching is used. The class teacher is also the teacher at the LRC. The teacher explained that almost all the pupils in Grade 4 take part in the extra teaching at the LRC because about 90% of the pupils need extra teaching to catch up.

We work with Discovery Learning Alliance regarding how to support Pupils with learning difficulties. They have provided a Learning Resource Center for the school. There is a television and CDs with learning content in especially numerals and literacy to enhance audio-visual teaching. The capacity of the teachers is built to address these learning challenges. The pupils with learning difficulties are given extra teaching after school. They get extra one hour four days a week (Adisah, 2018, Annex I, p. 1).

A materiality challenge in the learning situation is one of the things that characterized the Ghanaian school. Things that would make the learning environment better from the perspective of the teachers in Ghana were;

<sup>&</sup>lt;sup>27</sup> I think the method we use here - it is very good because one can go into the individual child to find out their level and build the child up from there so that they don't always "follow" the class and can move forward else there is the possibility for some of them to fall out since they are not all equal

"Teaching and learning materials"

"The learning environment – these are furniture, ICT tools, and manageable class size" (Adisah Annex I, p. 7).

Besides the above, the teacher explained that extra capacity building for teachers is desirable.

"For instance Creative Arts is new subject that requires capacity of teachers to teach it. Many teachers lack ICT skills, yet are expected to teach it" (Adisah Annex I, p. 7). The need for extra capacity building, in our view, is truly needed. This is due to the fact that for a teacher to master 8 subjects and teaches them appreciably is next to impossible. Our experience and informal interactions with other people associated with the Danish 'folkeskole' indicated that it is rare to have a teacher teaching more than 3 subjects. If the subjects are more three, the other subjects would possibly be practical subjects such as physical education etc. Thomas went to the Danish 'folkeskole' in Denmark and he explains that he had different teachers teaching every second other subject.

#### 5.3.4 Democracy, Freedom and Learning

In the Ghanaian case we observed a learning situation characterized by a wide gap between teacher-pupil and also pupil-pupil relationships. As stated above, the teachers influence regarding the choice of teaching and learning textbooks is limited. In the same manner the language barriers and the culture of learning that gives so much authority to the teacher made the learning environment less democratic and less free learning environment (Annex I, 2018).

In the Danish learning environment, the teacher is more accessible to the pupils. She politely answers their questions, and this seems to provide space for active engagement and interactions between the pupils and the teacher (Annex II). Progressive education is identified through democratic ideals where freedom and participation are key pillars. Methods and practices are humane and take onboard divergent views based on mutual respect (Dewey, 1938, p. 34). Attributing central role to humane practices and democracy is based on the general perception that democracy is the best of all social institutions and must form part of daily experiences of learning. The humane preference for experience is one that is attained through mutual consultation, interaction and persuasion (Dewey, 1938, p. 34). The Danish learning space seemed to provide

space for the pupils to engage the teacher actively (Annex II, 2019). Biesta also recognized this mutually respectful as significant in the learning environment and essential to enlightenment (Biesta 2015, p. 35).

The ability to read the signals sent by the pupils in the learning situation seem to have a role to play in ensuring desired learning environment. The teacher tries to seek to understand what causes lack of concentration in the learning environment. The ability to read signal reflects the humane practices.

"(...) børn larmer når de har vanskeligheder. De kan ikke koncentrere sig; de synes det er kedeligt og læren er dum og alt muligt. (...). Men vi ved, og det er vi trænet i, hvorfor de larmer? Og de larmer jo fordi de ikke kan finde ud af det, de keder sig jo. Det er jo det der er problemet. Det er ikke fordi de er uartige eller (noget). Vi har nogle gode børn, de skal bare have den rette mulighed for at kunne løse deres problem så har vi ingen larm" (Joan, 2019, Annex II p. 14).

The discussion regarding why children misbehave in class showed the school's proactive rather reactive approach to dealing with pupil's learning deficiency which is contrary to the practices in the Ghanaian situation. We interpret the above quotation to mean that the teacher seeks to understand why children misbehave and lose concentration. She doesn't just blame the child as being recalcitrant. This understanding provides the teacher practical tools and systematic ways to through persuasion deal with the child's learning challenges. The above reflect Dewey's notion of humane practices, mutual consultation and persuasion (Dewey, 1938, p. 34).

The Ghanaian learning spaces provides a different set of approach in addressing child's lack of concentration and learning challenges. The teacher explained the learning challenges to be caused by materiality and lack of parental support rather than a combination of materiality, aesthetic learning situation and practices used to address the challenges. Teaching approaches, learning environment and relationships involving organic communication and interaction between teachers and pupils are factors of a progressive education (Dewey, 138, p. 23). In a progressive educational setting, the learning community is characterized by communication based on democratically free and on equal terms. Democracy here is not based on electoral democracy, but based on reciprocal social interaction and cohesion (Ryan, 1996, p. 1060). The principle of interaction provides space for interpretation of experience. Interaction assigns equal

rights, and contributes to a desired learning situation. Cooperation between teachers and pupils based on mutual respect and recognition seems to characterize the relationship between the pupils and teachers and between pupils and pupils at Kildeskolen.

"Jeg gør mig meget kendt med hvad for nogle grænser og hvad for nogle rammer jeg har (Joan, 2019, Annex II p.16)<sup>28</sup>

Contrary to the above, observation and interaction with the teachers in Ghana showed skewed power relationships and one sided communication between pupils and teachers. The learning space was characterized by what Dewey will call "adult set of rules and standards" (Dewey, 1938, p. 20). Pupils who fail to live up to the defined set of rules and standards are punished verbally and sometimes by the "language of the cane" (Observation Notes, 2018 Annex I p. 6).

Use of corporal punishment and harsh words was visible in the school. We sought to understand why corporal punishment is still practice especially when Ghana ratified the rights of children which mean that the rights of the child must be protected. In our observation, beating them is violation of their rights. The teachers use stringent abusive language to control the behavior of the children. The teacher indicated that the pupils only understood the language of the cane.

"(...) a teacher needs the approval of the head teacher to beat the child. But teachers don't really follow that advice. I will also say that caning is the language the children understand" (Adisah, 2018, Annex I, p. 5).

The above statement deviates from the objective learning condition which is to be characterised by humane, organic communication based on free and equal terms as important prerequisite for social interaction (Dewey, 1938, p. 23). Our empirical data revealed that more than 90% of the pupils could not read and write. The practice and use of abusive words and beating children does not seem to promote humane teaching and learning characterized by democratic ideals.

<sup>&</sup>lt;sup>28</sup> I make efforts to demarcate the boundaries and the form of and the existing frameworks I have.

### 5.3.5 Experience, Thinking and Reflection

Observation and interactions revealed the less use of tangible teaching and learning materials as well as less integration of the children's experience into the learning environment in the Ghanaian case and thereby created an abstract and knowledge without action, learning situation. For Instance, the teacher drawing the computer mouse instead of showing it to the pupils, the theoretical discussions of creative arts instead of making the pupils produce their own arts seem to present teaching outside the realities of the pupils (Dewey, 1938). This learning gap between the learners and the teachers and between the learners and the content of what is learned made the learners more like spectators (Kline, 2004, Tangaard and Brinkmman 2010, p. 245).

The teachers lack teaching and learning materials (TLMs). Even chalk is not given. The chalk we have is purchased through contributions from pupils and sometimes the teachers use their own resources to purchase chalk (Amoah 2018, Annex I). Indeed a situation like the explanation above has the potential to make the learning situation unpleasant for teachers and pupils and especially if they feel helpless in address the learning challenges.

The perspective of transactional framework presents knowledge as a function of human action, human interaction and communication in the teaching and learning process (Biesta, 2003, p. 107). This is because reality reveals itself through action and activity that produce experience through the "doings" with other organisms. In this context reality is "experienced" and transacted and this position is what defines Dewey's notion transacted realism (Biesta, 2003, p 10). Dewey noted that the central concern of an education based on experience is to identify the kind of present experiences that live fruitfully and creatively in the subsequent experiences termed as "experiential continuum" and educative experience (Dewey, 1938, p. 35).

Inquiry into the learning spaces presented different practices. Whereas the learning corner, the Qual, the teacher's accessibility, the mutual respect and other factors got the pupils at the Kildeskolen actively involved in a learning experience that seemed democratic and educative, the experiences in the Ghanaian situation was challenging. We observed, that class rooms were crowded, lacked TLMs to create educative experience, did not use the experiences of pupils in the teaching and learning situation and the words used were harsh (Observation Notes, Annex I).

Dewey emphasized that, to "learn from experience" is to make a backward and forward connection between our actions and what we enjoy or suffer from them as a result. Simply participating in an activity does not constitute experience (Dewey, 1938, p. 45). He further stated that it is the role of the teacher to organize a learning situation where interaction takes place and to select objective conditions that support the needs and capacities of individuals in the learning situation (Dewey, 1938, p. 45). Our observation of the Ghanaian context, revealed a learning situation where the minds of the pupils seemed to be the focus of teachers, rather than the use of their hands and bodily experiences as a way to reduce boredom and to get them active learners (Dewey, 1916, p. 96). The 'learning by doing' does not only ensure active and learning through action, it also reflects Dewey's ideal of mind and body ideal of creative learning environment (Dewey, 1916, p. 96). Dewey explains;

If education does not afford opportunity for wholesome recreation and train capacity for seeking and finding it, the suppressed instincts find all sorts of illicit outlets, sometimes overt, sometimes confined to indulgence of the imagination. Education has no more serious responsibility than making adequate provision for enjoyment of recreative leisure; not only for the sake of immediate health, but still more if possible, for the sake of its lasting effect upon habits of mind. Art is again the answer to this demand (Dewey, 1916).

In the Danish context, the Qual gave pupils learning experience to form learning habits as explained in the school's "learning to learn" approach (Kildeskolen.dk). They also got the chance to think and reflect over what they learn and how they learn by being actively involved through trying out things with their hands. By doing things over and over, they cultivate certain habits of learning. The significance of cultivating learning habit forms a core of human learning experience. It enhances the formation of desirable learning attitudes that are emotional and intellectual and forms part of human basic habits. It strengthens the capacity of pupils regarding how to be responsive to life challenges in an unpredictable world. The basic characteristics of habits are that every form of educative experience transforms the actor which affect and determines the quality of the experience (Dewey, 1967, p. 89). We observed that the teacher did not always lead the discussions, the pupils worked individually and in groups. They would contact the teacher when there is the need. We noticed this kind of learning promotes thinking

and reflection as many of the pupils talked about the things and reflected over them (Observation Notes).

Both the Qual and the LRC had the basis to form learning habits of the pupils, but the mode of application determined the outcome. The Ghanaian case did not seem to be based on free will of the children and teachers. In the first place, the LRC was opened after school hours and meant that teachers would use their free time to give extra teaching to pupils (Annex I, 2018). The teacher acknowledged the relevance of the LRC and the partnership with the Discovery Learning Alliance.

"We work with Discovery Learning Alliance regarding how to support pupils with learning difficulties. They have provided a Learning Resource Center for the school. There is a television and CDs with learning content in especially numerals and literacy to enhance audio-visual teaching. The capacity of the teachers is built to address these learning challenges. The pupils with learning difficulties are given extra teaching after school. They get extra one hour four days a week" (Adisah, 2018, Annex 1 p.1).

The challenge is that many of the teachers did not really patronize the LRC and failed to meet the set targets. He explained that;

Currently we have what we call video lessons. It is part of the system from Discovery Learning Alliance. Just recently, I called the teachers to tell them that I am going to query all of them. I have given them a notice that every teacher must use the place for at least two times a week. We are in the 11th week and I expect that each teacher would have used the place at least 20 times. When I counted the records none of the teachers met the required target. I called all of them and told them that I am going to query them for them to answer because the time table for the video lessons is there, but I realized that it is not easy for them to always use it so I made it simple – use it twice a week so that you can meet up the target (Mr Amoah, 2018, Annex I p. 9).

The LRC is applied in a way that looks almost like a replica of the regular classroom. The pupils at the LRC seem passive recipients of knowledge as they watched and listened to audio visual recordings passively. The difference is the replacement of a one sided communication by the

teacher to a situation where audio visual sounds and pictures speak to the pupils. From Dewey's perspective the learning community is to be characterized by organic communication on free and equal terms as important prerequisite for social interaction (Dewey, 1938). We saw the organic communication being practiced at the Kildeskolen both at the teachers and at the levels of the pupils. As the teacher indicated if what is to be learnt is determined by a book, many pupils will fall-out.

"(...) hvis det er bogen der siger at jeg skal, så bliver jeg jo tosset for det kan jeg jo ikke, så render jeg rundt og spiller klovn"<sup>29</sup> (Joan 2019, Annex II p. 14).

One of the practices that we found interesting is the peer to peer learning style. We observed pupils interchangeably went round asking classmates if they needed assistance. One of the pupils explained that she served as the 'assistant teacher' for that day. And she assisted the teacher to answer questions that pupils might have in their learning process. This is because the teacher cannot reach all students and so pupils voluntarily step in as assistants periodically (Observation Notes, Annex II).

Interaction with the children revealed that the mood of the teacher and the use of the cane mattered in the learning outcome of the pupils as shown in the statements below;

"We don't learn well, because we play when the teacher is teaching"

"We don't learn well when there is noise in class and others are fighting"

"I don't learn well when I sleep in class"

"I will understand more if the teacher is patient"

"I will understand more if the teachers don't beat me or my friends. When she beats our friends we get afraid, because she might beat me too"

"If the teacher likes teaching and explains more by speaking clearly.

<sup>&</sup>lt;sup>29</sup> If it is the book that is to determine what I should do, I will become crazy because, I can't and in that case I would run around playing clown.

*"I don't like teachers because they use the cane and when they don't smile"* (Interview with children, Annex I, p. 6)<sup>30</sup>

By applying pragmatic approach where knowledge means action, we sought the opinion of the pupils regarding what makes a desirable learning environment. Below is what a section of the pupils had to say; these are mostly translated from the local language.

"Playground with "seesaw" (swing)

"Toilet and washrooms that don't smell – because we don't have toilet, we miss important thinks (lessons) in the class. We go outside to the bush for toilet".

"Computer center"

"Nurses to look after our health"

"Library"

"Teachers that smile and don't beat"<sup>31</sup> (interaction with children, Annex I p. 6).

The above interaction reflects the challenges of the pupils in a learning situation where the use of the cane is "allowed". The view of the Ghanaian teacher on the use of cane and that of the Danish teacher's approach clarifies a cultural factor regarding practices of the learning situation. Whereas the Danish teacher clearly saw causality between boredom and lack of learning and has ideas regarding how to lift the child up, the Ghanaian teacher express that beating children is the language the pupils understand (Observation Notes, 2018, Annex I). Informal interactions with teachers revealed that the Government of Ghana has in 2019 fully abolished beating in schools.

### 5.3.6 Learning and Play

Some of the things that surprised us in the inquiry process were outcomes of the interaction with the pupils and their expectations regarding learning environment. In an interactive session with

<sup>&</sup>lt;sup>30</sup> Parts of the texts is translated from the local language. Some are rewritten to increase comprehension. Note also that, the Ghana Education Service abolished beating by teachers in schools <u>https://www.ghanaweb.com/GhanaHomePage/NewsArchive/GES-bans-corporal-punishment-in-private-public-schools-716134</u>

<sup>&</sup>lt;sup>31</sup> Translated bits of the texts for comprehensive purpose

selected pupils at the Kildeskolen, we could see that, just as the Bagabaga Annex A, the theme play and recreation came up.

One of the pupils we interacted with at the Kildeskolen indicated that her favorite is physical education. *She said; "eeerh, I like Physical Education (PE)"* (Pupils of Kildeskolen, 2019, Annex II, p. 21). At the Bagabaga Annex A, interaction with a group of pupils, indicated the following;

"We don't learn well, because we play when the teacher is teaching"

*"Playground with "seesaw" (swing)* is some of the things that will make the school a desirable place (Interactions with pupils of P4A, 2018, Annex I, p. 6). The notion of play in interesting as it the word play came in different ways even if they were briefly. The statement "we don't learn because we play during teaching is an example of children adopting adult standards. If adults perceive play as mis-educative practice, children of such system will think along the same line. In this instance, the pupils bear the traditional notion of separation of mind and body and where play is seen as an intruder in the learning process (Dewey, 1916, p. 96). Dewey recognized the relevance of arts, play and creativity to pupils learning;

If education does not afford opportunity for wholesome recreation and train capacity for seeking and finding it, the suppressed instincts find all sorts of illicit outlets, sometimes overt, sometimes confined to indulgence of the imagination. Education has no more serious responsibility than making adequate provision for enjoyment of recreative leisure; not only for the sake of immediate health, but still more if possible, for the sake of its lasting effect upon habits of mind. Art is again the answer to this demand (Dewey, 1916, p. 96).

Brief review of play and learning shows that these two are not mutually exclusive except that traditional education focuses on the mind rather that body and sees play as intrusion during learning (Dewey, 1916, p. 96). Dewey explained that when children are engaged in physical activities, their natural talents and impulses become activated. By that they find joy in going to school, managing them in school becomes less a burden because the artificial gap between the school and life during spare time is reduced thus making learning easier (Dewey, 1916, p. 98). Additionally Knoop (2002) asserts that humans are motivated for play, learning and creativity to an extent far beyond what has hitherto been documented (Knoop, 2002). This is where we find

the creative practices at the Kildeskolen as an inspiration and alternative teaching method that could be useful for reflection in the progressive learning environment.

## 5.3.7 Sub Conclusion

Components of Dewey's notion of traditional and progressive education are observed to characterize educational practices at the two learning environments albeit to varying degrees. Global learning environments are unique in their own ways and require different policy frameworks to work. Materiality, but also reflections by educators on tools and strategies to address learning challenges are essential part of educational environments. The ideas seem to work best when the educators and significantly also the pupils are part of the learning environment. The pupils are important stakeholders in the learning environment and their freely acquired experiences, learning needs and aspiration regarding a desired learning environment ought to be taken into consideration in the design of the learning environment as well as practice of teaching and learning process. This is important seen in the context of ensuring democratic learning space characterized by organic communication and application of freely acquired experiences.

Materiality and availability of TLMs at the learning environment matters significantly. Reflection over teaching approaches regarding how to address learning challenges locally are essentially important. Leaning difference between the Ghanaian and Danish learning environment are not exclusively limited to materiality, but also cultural practices regarding the freedom of pupils, accessibility to the teacher, teaching and learning approaches. As indicated earlier, this study is not a comparative study. However the differences, both in terms of materiality and approach between the two cases are so wide that, they became the focal point of the study. Factors such as basic amenities, toilets, playgrounds, relationship between teachers and pupils and between pupils can affect learning outcomes. By being aware of the relevance of materiality in the learning situation, actors will get to appreciate the complexity involved in the design of progressive environments.

# 5.4 Biesta's Perspective on Education

Under this section, we draw reference to Biesta's view on education. We are particularly interested in his critical view of learning in the context of his concept of "*learnification*" and the effects of testing in the teaching and learning space. This analysis is built on Biesta's (2013) definition of learning and the risks involved in learning which he underlines as educationally relevant and important (Biesta, 2013, p. 59). We also draw on Biesta's views on the concept of "learning from" and "being taught by". He explains these to have different impact on the students in the learning situation. Biesta's critical view on the language of learning hidden under the evaluation regime is interesting. Furthermore, we use this section to dig into Biesta's views on teaching and the teacher's role in the learning environment. He argues that the teacher's interaction with the pupils through communication needs to go beyond the standard activities in the classroom. However, he asserts that the teacher cannot fully control the level of impact on pupil's learning.

## 5.4.1Biesta's Critical View of Learning and Teaching

As mentioned earlier we have been inspired by the SDG number 4 which focuses on quality education with an aim to "*Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all*" (SDG report, 2018, p. 26.). Based on this we can deduce that the problem at hand could be related to various factors regarding teaching and learning at the respective empirical sites. Our pragmatic approach to data collection, provided us with the opportunity to investigate the opportunities the teachers have, to create quality education for the pupils. Although the United Nations through the SDGs seeks to ensure equal learning opportunities for all, our empirical findings proved that factors such as the facility, number of pupils in the classrooms and different educational traditions have an impact on the learning environment. Furthermore, the teacher's qualifications and opportunities for teaching in their own subjects, as well as the communication between teachers and pupils, have an impact on improving the learning environment.

"As a class teacher, you are forced to teach subjects you are not trained to teach. You teach in *ICT*, yet there is no single computer in this school" (Adisah 2018, Annex I, p 1).

The teacher also expressed desire for capacity building especially in areas such as creative arts where she has the least to expertise to teach. Capacity building will allow her to teach subjects she is not trained to teach.

"More capacity building for teachers - for example creative arts is a new subject. Teachers need the capacity in this and ICT to teach effectively" (Adisah, 2018, Annex I, p 12).

The above is an indication that learning is not a natural process, but one need to consider the significance of materiality, capacity and the social factors. It doesn't come naturally, but requires deeper reflections to function.

### 5.4.2 Relevant Basic Components in the Learning Environment

The theme of learning is often made to be the most important concept in connection with education (Biesta, 2013, p. 59), but it can rather be impossible for learning to take place when elements such as materials to actively engage pupils are lacking in the teaching environment. We deduced that the lack of chairs, textbooks and other relevant materiality at the Bagabaga School had a negative effect on the pupils' ability to learn.

"The teachers lack teaching and learning materials (TLMs). Even chalk is not given. The chalk we have is purchased through contributions from pupils and sometimes the teachers use their own resources to purchase chalk" (Amoah 2018, Annex I p. 3).

Biesta (2013) writes that, learning should sometimes be considered as the last concept educators concentrate about (Biesta, 2013, p.59). But even under such insufficient teaching and learning materials, the Bagabaga Annex A was concerned with examinations and testing.

One of the reasons we can point out is that, there is focus on learning outcomes measured through tests and exams and educators often tend to neglect the other factors such as the social and materiality relations which has influence on learning. The SDGs recognizes the relevance of other factors. It noted that;

"The Goal goes beyond school enrolment and looks at proficiency levels, the availability of trained teachers and adequate school facilities, and disparities in education outcomes" (SDG report, 2017, p.26). How this is sought achieved in Ghanaian situation was not ascertained, but

observation revealed the lack of very basic materials at the schools (See Table 2: Materiality Chart) at the beginning of the analysis.

The SDG Goal 4 looks at other factors which also has influence on the pupil's ability to learn. This is also where this thesis is relevant. It illuminates the overall challenges of educational disparities. The lack of basic school facilities in the Sub-Saharan Africa region, where the Ghanaian empirical sites is found, contributes to reasons why there is less focus on the discourse of learning and rather more focus on the basic components. For the Goal ¤ to be achieved, much investment in schools and capacity of teachers.

5.4.3 Language of Learning and Risks of Education

The language of learning concerns with the overly focus on learning which in the eyes of biesta has become a buzzword. *"Everyone is talking about learning, and there is already a dangerous consensus that learning is central to any educational activity"* (Anderegg, 2018, p 1, Biesta, 2018, p. 207). He calls this *"learnification"* and argues that the meaning of 'learning' is concealed in an era of evaluations. This is where the role of globalization in national education policies counts. The PISA effectively changed focus on *bildung*, socialization to competences (Korsgaard 2018). The PISA which in this case symbolizes what Biesta calls the age of measurements is significant. Biesta argues that;

"This language was created in an 'age of measurement" and that learning is reduced to grades under a risk-free process (Anderegg, 2018, p. 1, Biesta, 2018, p. 207).

The issue of risks related to learning can be downsized (Biesta, 2013, p. 59). With regards to this, learning can be perceived as a straight-line and unproblematic process. However, Biesta is of the view that learning entails risks and that it is only when we seek to understand these risks and embraced them, it becomes educationally relevant and significant (Biesta, 2013, p. 59). His analogy of the risk entails all efforts to eliminate "waste of time". Pupils are prepared to pass

exams and technocrats device means to make sure children are trained carefully to pass exams. In this case what is learned is measured through exams.

From our observations we noticed, at the Kilædeskolen, that the teachers had an expectation of the pupils and what they should be capable of in 4<sup>th</sup> grade and under each treated theme. The pupils were tested at each level to progress to the next. The practice is, they'll either be asked to read out loud, translate what they've done in Danish to English as a way to ensure that they've understood everything. Every pupil is tested before they can move on to the next task (Annex II, 2018, p. 21). At Bagabaga Annex A, there are class tests, terminal examinations and the results are carried forward through the continuous assessments systems (Observation Notes). We observed the summative form of assessment rather the formative that would build the pupils for life. The testing at the Kildeskolen has elements of formative intent as explained below;

Vi laver læseprøver og små skriveprøver hele vejen op. Og det gør vi ca. 2 gange om året for at hele tiden at se om der sker en fremgang eller hvis den fremgang ikke sker, hvad kan vi så gøre. Så laver vi sådan et lille program til den enkelte elev; han skal lige læse lidt mere om et eller andet, hvad han nu har problemer med (Joan 2019, Annex II, p. 15).

The new language of learning seems to see learning is a natural occurring phenomenon. The risk here can be related to Biesta's theoretical view on denaturalizing learning (Biesta, 2013, p.69). Biesta asserts that learning is not a natural process, but occurs through action (Biesta, 2013, p.60) and that we cannot expect all students to be on the same level. The Kildeskolen seemed to recognize the difference in pupils learning abilities seen from the quotation above. They also use the Qual to address differences in pupil. The teacher at the Bagabaga School did not really consider the level of the pupils, but she seemed to be concerned about national set curriculum standards.

"It is sad to say that, at P4 we still teach two and three letter words. This should have been done at the foundation stages. The irony is that unqualified teachers are put at lower primary level or foundation level" (Adisah, 2018, Annex I, p.4). Educators' effort to indicate the pupils' proficiency in reading and mathematics ought not to be a negative thing however, but Biesta argues that tests and exams can have a negative impact on the pupils' socialization process;

An example of potential conflict is that where a constant pressure on testing and exams, which is perhaps an effective way to drive up achievement in the domain of qualification, can have a negative impact on the domain of subjectification if it teaches students that competition is always better than cooperation (Biesta, 2013, p. 129).

Although there is a need to meet different expectations at different levels of the pupil's academic life, It is also imperative to consider the notion of not making learning a natural process which builds on Biesta's theoretical view that learning is not a description of change, but rather making a judgment about change. This perspective about judgement of change involves both negative and positive habits which Biesta (2013) explains as the result of interaction with the environment (Biesta, 2013, p.69). In relation to this, Dewey writes that learning is based on our experience, but it is also the process of reflecting on the experiences and consequences of our actions that contribute to learning (Dewey, 1938, p. 45).

## 5.4.4 Learning Challenges and Different Approaches

There are some pupils who are faster to grasp what is being taught than others. The case of pupils who are not meeting the required reading efficiency in the 4<sup>th</sup> grade is identifiable at both the Ghanaian and Danish empirical sites. The only difference is that the number of pupils at the Bagabaga School is astronomically high. As Joan noted;

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"<sup>32</sup>Der vil altid være nogen der er lidt bagefter. Der er ikke to børn der er ens. Der vil altid være nogen der er lidt bedre til matematik og måske dårligere til dansk eller omvendt, og sådan vil det jo altid være men vi får dem med" (Joan, 2019, Annex II, p.13).

Based on the above we can deduce that learning or lack of learning is not a matter of geographical placing, but rather a matter of investigating the empirical sites thoroughly to understand how best pupils learn. During the collection of data, we observed that there are different ways of learning which does not necessarily have to be organized and led by the teacher. There were different instances where the pupils interacted with each other in order to achieve learning. An example of this was during Danish lessons at the Kildeskolen when two pupils suddenly went out of the class. To understand what goes on, I followed them curiously with eyes and ears opened. I observed that they are out to demonstrate a learning episode. This was in preparation to demonstrate the 'action' for the rest of the class later in the day. They were using their bodies to demonstrate the verbs they learnt in the Danish lesson (Observation Notes, 2019, Annex II, p.18).

Another example of this was during the lunch break where pupils were all at the playground. One could see that the pupils sometimes interacted with each other without the intention of consciously learning something (Observation Notes, 2019, Annex II). This peer interaction is central to what Biesta term as *coming into presence*. The question of human subjectivity focuses on where and how the human being as a unique individual "*comes into presence*" with others. Human beings "*come into presence*" through their relationships with others who are not like themselves and that is what makes human beings unique in relationships. What constitutes human uniqueness and singular beings, are found in the ethical dimension of human relationships acquired through education (Biesta, 2015, p. 34). We observed the learning situation where the pupils used each other to expand their understanding and use their experiences especially when they work in groups and when one of them serves as an assistant teacher (Annex II, 2009).

<sup>&</sup>lt;sup>32</sup> There will always be someone who is a little behind. There are no two children alike. There will always be someone who is a little better at mathematics and maybe worse at Danish or vice versa, and this will always be the case but we get them.

"Learning is something constructed - that when we refer to something as "learning" we are not engaged in a description of a naturally occurring phenomenon but are actually making a judgment about change" (Biesta, 2013, p. 59-60).

Digging into the empirical findings, we discovered that testing is associated with what Biesta (2013) refer to as "judgement of change". When Joan noted;

"(...) vi måler hvor langt de er kommet, er de kommet videre eller står de stille eller skal vi lave en hel anden indsats for det barn, så vi hele tiden har en pejling eller en måling af om det går som det skal" (Joan, 2019, Annex II, 17).

She was referring to the kind of change in the lives of the pupils. This is not always measurable through exams and learning doesn't have to factual cognition (to borrow Dewe's term). Although "judgement" seems to have a negative connotation, Biesta (2013) argues that educators should be aware of the significance of this. He explains that a judgment of the educational environment is important to assess the progress of pupils and determine who they are. He calls this "normative judgments about desirable change, not descriptions of inevitable natural processes" (Biesta, 2013, p.60). Pragmatists such as Dewey and Biesta hold the view that educational goal should involve a formation of critical thinking actors that enable them to participate in the creation of the 'unfinished world'. The process of recreating the unfinished world has no manuscript prepared in advance, but actors must adjust and reconstruct ideas and practices to guide the process (Osberg et al., 2008, in Brinkmann & Tangaard, 2010, p. 253).

### 5.4.5 The Teacher's Role

Biesta's (2013) critical view on the discourse of learning makes us to understand that the language of learning has not always been beneficial in the educational setting (Biesta, 2013, p.60). He explains that there should be a distinction between "learning from" and "being taught by" since these two views entails different views on learning. These views have to do with the role of the teacher in the educational setting. Biesta (2013) explains:

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When students learn from their teacher, we could say that they use their teachers as a resource, just like a book or like the Internet. Moreover, when they learn from their teachers, they bring their teachers and what their teachers do or say within their own circle of understanding, within their own construction. This means that they are basically in control of what they learn from their teachers (p.53).

We can assume that teaching is a necessary component of all education and that the teacher has a great responsibility to bring something new to the educational setting. It is therefore not enough for the teacher to only provide information, but it is rather necessary for the teacher to go beyond this. It therefore requires teachers to have the necessary tools to accomplish tool of formation rather than feeding the pupils' with information. One of the informants in Ghana noted;

"(...) just talking doesn't help. So, the method that they are using brings about boredom. Because when the teacher is doing the talking alone the pupils will either be sleeping or doing something else" (Observation, Annex I, p.4).

The above position represents the ideal of pragmatism where knowledge is seen as a path to freedom and creative independence that is achieved through social regulation and the interconnection of the relations between hands, bodies, and the world (Brinkmann and Tangaard 2010). This observation note was a reflection based on the ongoing situation in the classroom where it became clear to us that the teacher was failing to engage the pupils through organic communication. This was observation made by an intern on teaching practice. He further indicated;

"At this level students (pupils) need things that they can play with – they need hands on activities and guided instructions, but all that they (teachers) do is feed them with information, they will come stand talk, talk and go" (Issah 2018, Annex I, p.3).

When teaching approaches are not supported with the relevant Teaching & Learning Materials (TLMs), it can have negative consequences for the pupil which we could deduce from the teacher's statement. The lack of these basic materials is one of the main reasons why certain regions performs poorly in the SDG report (SDG Report, 2017, p.29-30). The empirical findings show that the teacher has a role to improvise TLMs in order to make teaching meaningful and interactive. The lack of these creates boredom and lack of concentration.

"They say it is because of inadequacy of teaching and learning materials, even though we are taught that the teacher is supposed to improvise TLM" (Issah, 2018, Annex I, p.3).

Issah also explained that the school lacks ICT.

"As I was talking, we don't have a single computer, so in terms of ICT, the teachers are teaching abstract and you know you have to teach practical especially at this basic level, involving....erh child centered approach is the best way to always involve the child". (Issah, Annex I, p.9).

Whiles we still dwell upon the concept of "learning from" where the pupils simply use the teacher as a medium to acquire more knowledge and where much of what is learned is abstract, it means that they cannot avoid the risk of losing fragments of information sent from teacher. Moreover, the teacher can influence the pupil in the direction he/she has constructed the information since the pupil will basically be passively receiving information from the teacher without reflections. This is because the pupils, especially in the Ghanaian school are not active players and does not freely interact with the teacher and ask questions (Observation Notes 2018, Annex I).

For pupil to *be taught* by a teacher, the teacher must bring something extraordinary to the learning environment. It is also because the teachers cannot fully control the level of which the students are impacted by their activities, especially if the teaching is organized in a free and democratic setting. *"Whether someone will be taught by what the teacher teaches lies beyond the control and power of the teacher"* (Biesta, 2013, p.53).

Based on this Biesta (2013) suggests that teaching with a focus on the teacher cannot be entirely immanent to the educational situation, but requires a notion of "transcendence" (Biesta, 2013, p.44). Biesta (2013) explains the concept of transcendence in relation to education as the gift given by the teacher to the students. When teaching transcends from the teacher to the pupils, the outcome will be passive reception of knowledge. Because that would mean that the teacher feeds the pupils with information as in the Ghanaian case quoted above.

The teacher at the Kildeskolen acknowledges the fact that teaching should not only be done in the classroom setting but it is necessary to go beyond that. In this regards, she says that it is important

to invest time in knowing the students in order to help them since there are not two children who are alike. She explains that she has in the last ten years been providing help to to pupils who have difficulty in school through private homeschooling. She calls this the FERGO and explains;

<sup>33</sup>Altså, jeg har lavet noget der hedder FERGO og det er pandang. Og det er sådan en hjemmeundervisning til den her studieteknik. Det er det samme studieteknik, men det er bare når børnene har været i skole og de kommer hjem og får ekstra undervisning privat. Det har jeg lavet i 10 år (Joan, 2019, Annex II, p. 14).

#### 5.4.6 Artifacts and TLMs

The findings at the Kildeskolen in Denmark, made us aware that there are several clear artifacts that helps to define the teaching approach in connection with class teaching. The eye-catching things we noticed in the class were, for instance;

- A whiteboard
- 2 cupboards with learning materials (books, pen, pencils etc)
- Posters with numerical chain, words and figures, map of Europe and the globe.
- There's a rectangle table by the side where the pupil use modeling wax to spell words and be practical /active.

According to the class teacher, the purpose of all these materials are to enhance the pupils understanding and ability to learn what is required of them at their level of education. Looking at the learning environment and the materials made available for the pupils, one may assume that learning challenges are none existent at this school. However, there are some pupils who faces challenges in their development.

<sup>&</sup>lt;sup>33</sup> So, I have done something called FERGO and it is pandang and this is a homeschooling using the same learning technique. It is the same learning technique, but it is only when the children have been in school and they come home and receive extra tuition privately. I have been doing this for 10 years.

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"The pupils are constantly at the teacher's desk. At some point there were 3-4 pupil sitting permanently by the teacher's desk because they were having challenges. They just couldn't solve the task given them" (Observation Notes, 2019, Annex II, p. 19).

This scenario led us to reflect over the impact these learning materials has on the pupils. Our critical view on the actual benefits of the learning materials is not because we oppose the need of these fundamental elements in the learning environment as mentioned in the earlier section of the analysis. However, one can wonder why some pupils have learning challenges when they are introduced to advanced learning materials and teaching approach. This could be because some pupils are motivated to learn by using their bodies rather than using learning materials. In connection with these observations, we realized that learning difficulties is not necessarily influenced by elements in the learning space, but perhaps a need to investigate the individual pupil's background.

#### 5.4.7 Cooperation; The School and The Home

Based on the empirical findings both from Ghana and Denmark whereby teachers were interviewed, it was revealed that the school alone cannot lift the task by itself. The responses from both empirical sites make us aware that help from the home also contributes a lot to prevent the pupil's learning challenges.

"Fagligt? ja, det er vores ansvar, men det er også forældrenes ansvar. Vi kan ikke hjælpe et barn, hvor der ikke bliver bakket op fra derhjemme. Altså, forældrene har en stor opgave og de skal hjælpe os med at få et dygtigt barn" (Joan, 2019, Annex II, p. 15).

The class teacher of the fourth grade at the Kildeskolen acknowledges the importance of the parents' commitment from the home. This was based on the question which was put to her concerning whether she thinks that it is the teacher and the school alone who should be responsible for the children's development during their education. Although this question may seem like a leading question, we found it relevant to know the teacher's opinion about this matter. The teacher further explains that it is important to make it known to the parents that

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learning does not happen in the classroom alone, but it also continues when the child is home. The class teacher says that, the individual child's ability to acquire higher proficiency level in reading and mathematics. She deputes the notion that it is solely the teacher's responsibility. She elaborates by saying that he parents have to understand their role and duties which entails helping the children with their homework and motivating them to develop in their academic life.

"Altså, vi stiller krav og hvis de ikke er vant til at man stiller krav, så kan de ikke lære noget, for ellers vil de ikke lære noget. Så vi skal lave et samarbejde – helt klart et samarbejde med hjemmet også". (Joan, 2019, Annex II, p. 16).

While one empirical site is touching on the importance of the parents' engagement, the other shows their dissatisfaction with the lack of parenting co-operation.

"It is difficult to engage parents. If you invite parents to the school they will not come. We have given up engaging parents. So no, we don't engage the parents". (Saadia, 2018, Annex I, p.4).

One can wonder or even assume that some parents of these pupils are indifference and refuses to invest time in their children's development in school. The teacher at Bagabaga explains;

I think the home is the major challenge". Pupils come back to school with homework they are supposed to do at home. Parents don't support the learning of their children. They don't seem to care about that. Sometimes we invite them for PTA (Parents & Teachers Association) meetings and they don't come (Adisah, 2018, Annex I, p.3).

When we read the statements made by the teacher we can see that they are trying to involve the parents, however it is a struggle to succeed with it. In attempt to find a reason to why some parents are not cooperating with the school, the SDH report suggests that factors such as poverty and location of residence all have influence on the pupils' reading proficiency (SDG Report, 2017, p.30). We can translate this and relate it to the environment in which the families are located. In continuation of this a teacher from the empirical site in Ghana comments that "From

the environmentalist perspective, learning depends on the environment in which you come from". (Adisah,2018, Annex I, p.3).

In relation to this we can argue that the background and the socio-economic status of the families has a great impact on the parents' ability to help their children.

#### 5.4.8 Sub conclusion

Biesta's theoretical perspective concerning learning and teaching in the educational setting has been used in this section to underpin our empirical findings. Our pragmatic and participatory inquiry approach towards data collection contributed to the main elements in this analysis. Findings show that Bagabaga School in Ghana is facing materiality and practices challenges in achieving minimum learning proficiency. However, the findings also show that the learning challenges do not only occur in the Ghanaian school but also visible in the Danish school. There are however different reasons from one site to the other.

In attempt to improve the pupils' learning ability, educators ought to focus much on the concept of education. Biesta criticize the language of learning and asserts that there should be more focus on the interaction with the learning environment. Furthermore, Biesta argues that there are risks involving in the concept of education where educational outcomes are measured through tests and exams and where the discourse of tests and examinations has overtaken educational judgement. Biesta suggests that educators should acknowledge and try to understand these risks since they are educationally significant.

The empirical findings show that the teaching and learning materials in the learning environment is significant for both the teacher and the student. However, we found out that these materials do not eliminate learning challenges. The use of the body and practical exercises was observed as the best way of acquiring learning for some students. It was also made clear that the cooperation between the school and the home has a significant role to play in the child's development. Teachers from both empirical sites take distance from the notion that the school alone is responsible for the pupil's development. The teachers acknowledge the role and the importance of the parents.

### Chapter 6: Discussion and Perspectives

The analysis of the thesis where we through abductive approach relate theory to empirical data and visa revealed an interesting perspective of play that we seek to discuss briefly. The idea of play emerged through the empirical data when some of the pupils in both Ghana and Denmark mentioned the desire of have a playground and physical education as her favorite subject. To reflect over the role of play, we sought to look into Dewey's texts and indeed realized that Dewey wrote extensively on play. Other Danish actors have also made significant presentations regarding the significance of play.

John Dewey (1916) defined play as the art of manipulating tools and materials to construct and give expression to joyous emotion of children engaged playfully (Dewey 1916). Contemporary writers such as Elisabeth Wood (2004), a Yale Professor took the notion of play further. She defines *pedagogy of play*, as the ways in which early childhood professionals make provision for play and playful approaches to teaching, design of play environments, and pedagogical decisions that enhance PoP (Wood, 2004, p. 27). References are drawn to Knoop's notion of creative tension. He argues that lack of challenges leads to boredom and that majority of learners will identify successful learning experiences to occur when what is learned means something positive to the learner (Knoop, 2002). The notion of pedagogy of play is interesting seen in the context that children have natural instincts to play. They also have experiences from playing all their lives. Dewey argues that, If education does not afford opportunity for wholesome recreation and train capacity for seeking and finding it, the suppressed instincts find all sorts of illicit outlets, sometimes overt, sometimes confined to indulgence of the imagination. Education has no more serious responsibility than making adequate provision for enjoyment of recreative leisure; not only for the sake of immediate health, but still more if possible for the sake of its lasting effect upon habits of mind. Art is again the answer to this demand (Dewey, 1916, p. 96).

The interesting question to ask is how can educators both in rich and poorer countries explore pedagogy of play as a 21<sup>st</sup> century educational tool? In our opinion, one does not need fancy and sophisticated environments to organize teaching and learning based on play. The significance of materiality that has shown great disparities between the Ghanaian and the Danish case would be reduced, if teacher, even in poorer countries could organize learning spaces based on pedagogy of play.

Finally, it is significant and could be interesting to study the extent to which global actors cooperate towards the looming global learning crisis. Three and a half years is already taken out of the 15 year target (2015 - 2030) and yet, the empirical data from Ghana, a country that is often showcased a good example seems to present a gloomy picture.

## Chapter 7: Conclusion

By applying the inquiry approach, we entered into the empirical sites with open mind" with the expectations to explore new areas regarding learning environments, but our inquiry produced familiar findings, that are not very new.

The thesis concludes that the learning environment is characterized by different materiality and human factors such as the level of freedom of the learning sites, organic communication that is characterized by humane and mutual respect. A learning environment that is free, democratic and interactive allows pupils to incorporate their freely acquired experiences into learning and such learning situation produces learners who inculcate the habit of learning. The humane and democratic practice must eliminate all forms of abusive, harsh and use of force. It should be based on persuasion, consultation and mutual respect. Educational policies seem to work best when teachers and significantly also the pupils are part of designing their learning space. Pupils ought to be seen as important stakeholders in the learning environment ought to be taken into consideration in educational policy implementation process. This is important seen in the context of ensuring democratic learning space characterized by organic communication and mutual consultation.

The language of learning in the educational process seems to become a buzzword. The focus of learning points to factual results through tests pupil are able to produce. The evaluation and test regime has assumed a global dimension such as in the PISA.

Even though, the Danish empirical case has elements of innovative practices, both the Ghanaian and the Danish learnings environments defined by notions of progressive and traditional education. The degree to which they their progressiveness and/or traditionalistic varies significantly. The Ghanaian is more traditional and the Danish gas greater degree of progressive elements. The practices at the Kildeskolen have the potential to provide basis for inspiration both for practitioners and policy makers in Denmark and around the world.

Materiality matters in the learning environment and educators must be conscious of material and aesthetic conditions that make learning pleasant and educative experience. The notion of aesthetic learning environment must reflect the needs of children. In this case, possibility to play is essential. Materiality and availability of TLMs at the learning environment matters significantly, but well reflection over teaching approaches regarding how to address learning challenges locally are essentially important. Leaning difference between the Ghanaian and Danish learning environment are not exclusively limited to materiality, but also cultural practices regarding the freedom of pupils, accessibility to the teacher, teaching and learning approaches as well. As indicated earlier, this study is not a comparative study, however the differences both in terms of materiality and practices between the two are so wide, that the material difference cannot be ignored and thus serve as the basis for deeper global educational inequality. Factors such as basic amenities, toilets, playgrounds relationship between teachers and pupils and between pupils can lead to miseducative experience. By being aware of the relevance of materiality in the learning situation, actors will get to appreciate the complexity involved and address them accordingly. Aside of the curriculum content, it is just as necessary to show key interest in the learning environment's physical condition that has the objective of supporting learning activities and social cohesion.

### Chapter 8: Bibliography

#### Books and Journals

- Alvesson, M. 2005. *kvalitative Metoder i et interaktionistisk perspektiv, interviews, observationer og dokumenter*" (1. Udgave, 3. Oplag). København: Hans Reitzels forlag.
- Agbenyega, J. & Deku, P. (2011) "Building New Identities in Teacher Preparation for Inclusive Education in Ghana" Current Issues in Education, Vol 14(1).
- Andersen, P. Ø & Ellegaard, T. (2012) "Klassisk og moderne pædagogisk teori" (2. Udgave). København: Hans Reitzels Forlag.
- Biesta, G.J.J (2013) "The Beautiful Risks in Education" Boulder: Paradigm Publishers .
- Biesta, G.J.J & Burbules, N. C. (2003) *"Pragmatism and Educational Research"* Rowan and Littlefield publishers Oxford.
- Biesta, G.J.J (2015) "Beyond Learning Democratic Education for a Human Future" Routledge New York.
- Biesta, G.J.J & Burbules, N.C, (2003) "Pragmatism and Educational Research" Philosophy, Theory, and Educational Research Series. Rowman & Littlefield Publishing Inc New York.
- Cahn, M.S (2009) "Philosophy of Education The Essential Texts" Routledge Taylor & Francis, New York.
- Cozzaralli, Tatiana (2017), "A Marxist Critique of John Dewey: The Limits of Progressive Education" Left Voice publication
- De Vaus, D. (2001) "Research Design in Social Research" Sage Publications, New York
- Dewey, J. (1938) "Logic the Theory of Inquiry" HENRY HOLT AND COMPANY, INC.
- Dewey, J. (1931) "Philosophy and Civilization" G.P. Putnam's Sons, New York.
- Dewey, J. (1967) "Reconstruction in Philosophy" Beacon Press . Boston
- Dewey, J. (1938) "Experience and Education" Simon and Schuster.

- Dewey, J. (1916) "Democracy and Education" The Macmillan Company New York.
- Dillenbourg, P. (1999) "Collaborative-learning: Cognitive and Computational Approaches" Elsevie.
- Dolin, J. & Krogh, L. B. (2010) "The Relevance and Consequences of PISA Science in Danish Context" International Journal of Science and Mathematics Education National Science Council, Taiwan (2010).
- Flyvbjerg, Bent 2006 "Five Misunderstandings About Case-Study Research" Aalborg University
- Flyvbjerg, B. (1991) "Rationalitet og Magt I", Akademisk forlag
- Germaine, Ron *et al* (2016) *Purposeful Use of 21st Century Skills in Higher Education* Journal of Research in Innovative Teaching Volume 9, Issue 1, March 2016 Publication of National University La Jolla, CA USA
- Goldstein, Jeffrey at el 2004 "TOYS, GAMES, AND MEDIA" Lawrence Erbbaun Asociates, Publishers) Mahwah, New Jersey
- Graeme, Sullivan 2006 "Research Acts in Art Practice" Journal of Issues of Research 48
   (1) Social Sciences Premium Collection
- Gustafsson, Johanna 2017 "Single case studies vs. multiple case studies: A comparative study Academy of Business, Engineering and Science Halmstad University Halmstad, Sweden
- Illeris, K. (2006) "How We Learn Learning and non-learning in school and beyond" Routledge 270 Madison Avenue, New York, NY 10016
- Kemis, S. et al (2004) "Changing Practices, Changing Education" Springer
- Kirkeby O. F. (1994) "Abduktion in Heine Andersen (red): "Videnskabsteori og Metodelære" Samfundslitteratur, Frederiksberg.
- Korsgaard, O. et al, 2018: "Pædagogikkens Idehistorie" Århus Universitetsforlag
- Leonardi, P. M. (2012) "Materiality, Sociomateriality, and Socio-Technical Systems: What Do These Terms Mean? How Are They Different? Do We Need Them?" Oxford University Press
- Livingstone, S. & Bovill, M. (eds) *Children and their changing media environment: A European comparative study* (pp. 31–50). Mahwah, NJ: Lawrence Erlbaum Associates.

- Niels Anderegg 2018, "Review": "*The Rediscovery of Teaching*", c e p s Journal | Vol.8 |
   No 3 | Year 2018 Routledge: New York, NY, a nd London, UK, 2017; 122 pp.
- Nordenbo, E. S. "Dannelse, kompetence og uddannelse" i Kristensen, Jørgen, Hans og Laursen, Fibæk, Per, 2011, "Gyldendals pædagogik håndbog", Gyldendal.
- Putnam, D Robert 1993 Making Democracy Work civic traditions in modern Italy,
   Princeton University Press New Jersey
- RESEARCH, Vol. 63, No. 4 (Winter 1996)
- Rose, M. (2009): "21st century skills: The new buzzwords for educational reform". http://newsroom.ucla.edu/stories/21st-century-skills-the-new-buzzwords-149812
- Ryan, A. (1996) "Pragmatism, Social Identity, Patriotism, and Self-Criticism SOCIAL
- Santoro, D.A & Rocha S.D (2015) "Review of Gert J.J Biesta, The Beautiful Risk of Education". Stud Philos Eduuc, Springer Science.
- Schartzki, T. R. (2002) "*The site of the social: A philosophical account of the constitution of social life and change*". University of Park: Pennsylvania State University Press

#### Journals, Articles and Reports

- ALLEA 2017 "The European Code of Conduct for Research Integrity" Revised Edition ALLEA Berlin
- Nudzor, Hope Pius, 2014 *Exploring the policy implementation paradox: using the Free Compulsory Universal Basic Education (fCUBE) policy in Ghana as an exemplar* International Journal of Qualitative Studies in Education Volume 26, 2013 - Issue 8
- Eetekin, Erhan et al 2009, "*Teacher Trainees*' *Epistemological Beliefs; Effects of Gender, Institution, and Discipline*" The New Educational Review Volume 18
- Brinkmann, Svend and Tanggaard, Lene 2010 *Toward an Epistemology of the Hand* Stud Philos Educ (2010) 29:243–257 Springer Science+Business Media B.V. 2009
- Ejsing-Duun, Stine and Skovbjerg, Helle Marie 2018 *Design as a Mode of Inquiry in Design Pedagogy and Design Thinking* 2018. iJADE NSEAD/John Wiley & Sons Ltd
- Brodersen, Nicolai Hansen and Dalsgaard, Peter 2012 "The Productive Role of Material Design Artefacts in Participatory Design Events" CAVI & PIT Aarhus University

"The 21<sup>st</sup> Century Learning Environment – disparities, challenges and prospects" MA in Learning and Innovative Change – Aalborg University, Copenhagen Thomas Sam-Ansah & Shani Mahama

 Adu-Gyamfi, Samuel, Donkoh, Joselyn W & Addo, Adinkrah Anim 2016 "Educational Reforms in Ghana: Past and Present" Journal of Education and Human Development September 2016, Vol. 5, No. 3, pp. 158-172

Internet Sources

Gert Biesta – <u>https://www-gertbiesta-com.jimdosite.com/</u> Ghana Education Service <u>https://www.ges.gov.gh/divisions/basic\_education</u> The United Nationa 2017 *"Sustainable Development Goals Report 2017"* New York https://unstats.un.org/sdgs/files/report/2017/thesustainabledevelopmentgoalsreport2017.pdf Ghana Ministry of Education 2012 "NATIONAL SYLLABUS FOR GHANAIAN LANGUAGES AND CULTURE (PRIMARY 4 - 6) - Curriculum Development and Research Division CDRD Wold Bank Human Capital Index 2018

https://photius.com/rankings/human\_capital\_index\_country\_rankings\_2018.html 12.03.2018

World Bank Group 2018 "Learning to Realize Education's Promise" https://www.worldbank.org/en/news/press-release/2017/09/26/world-bank-warns-of-learningcrisis-in-global-education UNESCO: "Global learning crisis is costing \$129 billion a year" 2019 https://en.unesco.org/news/global-learning-crisis-costing-129-billion-year UNESCO UIS 2017 "More Than One-Half of Children and Adolescents Are Not Learning Worldwide" Fact Sheet No. 46 September 2017 UIS/FS/2017/ED/46<u>http://uis.unesco.org/sites/default/files/documents/fs46-more-than-half-</u> children-not-learning-en-2017.pdf

Merete Riisager 2017 "Det var en fejl at gøre op med den sorte skole" Berlingske 1. August 2017 Sektion 1. <u>https://www.b.dk/politiko/merete-riisager-det-var-en-fejl-at-goere-op-med-den-sorte-skole</u>

Anders Fogh Rasmussen, "Statsminister tale ved Folketingets åbning tirsdag den 7. oktober 2003" <u>http://www.stm.dk/\_p\_7446.html</u>

Anne Maj Nielsen 2017 "Hvis du ikke får det gode

karakterer....."<u>https://www.b.dk/nationalt/hvis-du-ikke-faar-de-gode-karakterer-nu-saa-er-det-</u> bare-oev-boev-saa-maa-du-blive

Sustainable Development Goals : https://sustainabledevelopment.un.org/sdg4

News Papers

Ghanaian Graphic: <u>https://www.graphic.com.gh/news/education/corporal-punishment-is-illegal-ges-warns.html</u>

CitiNews: <u>https://citinewsroom.com/2019/02/27/well-roll-out-gps-policy-despite-teacher-unions-</u>protest-education-

ministry/?fbclid=IwAR1FFMafjQkQkdsnxHBlUQ4DfWvI2Gy\_LvrzEd6yXr1v4CyiN65qj4yk03 c

Whatsapp News 2019 "World Bank warns of Poor Education in Ghana"

https://whatsupnewsghana.com/2019/02/19/world-bank-warns-of-poor-education-in-ghana/

Ghanaweb 2019 "Poor education to affect Ghana's human capital - World Bank"

"<u>https://www.ghanaweb.com/GhanaHomePage/NewsArchive/Poor-education-to-affect-Ghana-s-</u> human-capital-World-Bank-698433#

Information 2017 "Gymnasieelever er lige så stressede som de 20 pct. mest stressede voksne" <u>https://www.information.dk/indland/2017/01/gymnasieelever-lige-saa-stressede-20-pct-mest-</u>stressede-voksne

"The 21<sup>st</sup> Century Learning Environment – disparities, challenges and prospects" MA in Learning and Innovative Change – Aalborg University, Copenhagen Thomas Sam-Ansah & Shani Mahama

Chapter 9: Article

Democratic Learning Environment - An important prerequisite for progressive learning space "The 21<sup>st</sup> Century Learning Environment – disparities, challenges and prospects" MA in Learning and Innovative Change – Aalborg University, Copenhagen Thomas Sam-Ansah & Shani Mahama



Master Thesis to the Department of Philosophy and Learning at Aalborg University, Copenhagen in fulfilment of a MA Learning for Innovative Change Degree By Thomas Sam-Ansah- 20171135 & Shani Mahama - 20031382

Supervisor: Heidi Hautopp

## Resume

Artiklen undersøger to læringsmiljøer i henholdsvis Danmark og Ghana. Denne afhandling er baseret på to casestudie af to 4. Klasser i to skoler, Kildeskolen i Valby og Bagabaga Annex A i Sagnarigu, som er en forstad til Tamale, i Nordghana. Deweys inquiry og pragmatiske tilgange danner grundlag for det valgte videnskabelig refleksioner om indsamling af det empiriske data. Deweys og Biestas ideer om traditionel og progressiv uddannelse baseret på demokrati er de teoretiske rammer.

Undersøgelsen har vist, at den danske skole er kendetegnet ved aktiv deltagelse af både lærer og elever baseret på demokratiske spilleregler. Eleverne i læringsrummet har frihed og indflydelse på deres egen indlæring. Læreren er tilgængelig og støtter om børnenes læring. Der er gensidig tillid mellem lærer og elev.

Den viser også, at det ghanesiske læringsrum er lærerstyret, hvor der er envejskommunikation fordi børnene er undervist i et fremmedsprog som de ikke rigtig forstår og dermed ikke kan deltage aktiv i undervisningen. Børnene føler sig lidt bange for læreren fordi de kan risikere at blive slået af lærerne når de er uartige. Mange af børnene kan ikke rigtig skrive og læse. Det er mest læreren der fører samtalen og børnene lytter passivt. Artiklen konkluderer, at et læringsrum baseret på frihed, ligeværdighed, respekt og anerkendelse fremmer aktivdeltagelse i læringen.

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### Introduction

This article presents brief highlights of our thesis; *The 21<sup>st</sup> Century Learning Environment – disparities challenges and prospects.* The thesis explores pragmatic inquiry approach into two cases of learning environments in Denmark and Ghana. The focus is on the significance of democratizing learning environments as important prerequisite for desired learning outcomes.

Quality education is the Goal 4 of the 17 Sustainable Development Goals (SDGs) (<u>www.sustainabledevelopment.un.org</u>, 2015). Ghana Education Strategic Plan 2018 - 2030 is designed to reflect priorities of the SDGs (ESP 2018). The Danish education system has also gone through policy changes due to globalization. For instance, the OECD's Programme for International Student Assessment (PISA), raised public awareness and caused policy reforms globally and in Denmark (Schleicher, 2018, p. 21, Dolin and Krog, p. 565).

Dewey's pragmatic and participatory inquiry approach is applied (Dewey 1939). The analysis draws on the interplay between John Dewey and Gert J J Biesta's thoughts around progressive and traditional education. The empirical data is collected in the 4th grades of a school each in Ghana and Denmark. The Danish case presents an interesting perspective to draw, due its democratic and interactive teaching and learning practices (Observation Notes 2019).

### **Global Learning Crisis**

According the World Bank; "More than 617 million children and adolescents are not achieving minimum proficiency levels (MPLs) in reading and mathematics" (UNESCO 2017, p. 1). The World Bank Representative in Ghana, Dr Antonio Guiffrida in presenting the WDR for 2018, revealed; "The reality is that, the education in Ghana is not of good quality, some children do not go to school at all, others go to school but do not complete, while others are malnourished and cannot fully attain their potential," (Ghanaweb 2019)<sup>34</sup>.

<sup>&</sup>lt;sup>34</sup><u>https://www.ghanaweb.com/GhanaHomePage/NewsArchive/Poor-education-to-affect-Ghana-s-human-capital-World-Bank-698433#</u>

The Human Development Index 2018 rated Ghana lower compared to other African countries. We wonder how come Ghana's educational rating is lower than the category of countries she is often compared with (WDR 2018). In other indicators such as democracy, Ghana is often seen as a role model in African context (BBC World, 2017, Armah-Attoh and Robertson, 2014). The World Bank estimated that about 10% of global spending on primary education approximately \$129 billion a year is lost on poor quality education (World Development Report, 2018). Stasage, (2005) argued that quest for electoral gains make politicians increase government spending on primary education (Stasage 2005, p. 358). The high placement of Ghana democratically and low rating educationally raises a research curiosity.

#### Method of the Study

This is a collaborative qualitative article that forms part of our master thesis to Aalborg University, Denmark. Qualitative interviews and observations are conducted individually by the two students at the two empirical sites. The article is based on Dewey's pragmatic and participatory inquiry approach. We actively engaged the respondents, equally, democratically and in ways that recognized their expertise in their respective fields (Dewey 1931, p. 13). Semi structured interviews, informal interaction and observations of teachings, group interaction with children from Kildeskolen in Denmark and Bagabaga Annex 'A' Primary School in Ghana have served as the empirical basis. The names of the respondents are anonymized to protect their privacy as part of the ethical considerations.

#### State of the Art

Agbenyega and Deku (2011) applies critical post-colonial discursive framework to analyze Ghanaian pedagogical practices. They found the learning environment "intensely oppressive", prescriptive, mechanistic, and less focus on pupils' differences (Agbenyega and Deku 2011, p. 1). Their empirical data is based on observations of trainees' teaching practices. This article has taken a step further to assess teaching environmental practices in the context of democracy. They complement each other rather than being critiqued.

#### **Brief Theoretical Reflection**

Children do not conform naturally to the cultural practices and life-customs of the society in which they are born. Thus, they need direction and guidance. Guidance and direction have an element of control. However, this control is not the same as compulsion. Since adults are not always conscious of controlling the action of others, they are likely to exert undue force. Inclusive and participatory approaches allow pupils to gain "*social sense of their own powers and of the materials and appliances used*" (Dewey, 1916, p. 22). Dewey espoused a system of education to educate members with social and democratic values based on humane practices for a democratic community (Dewey 1916, Ryan, 1996, p. 1059). This community is to be characterized by organic communication based on free and equal terms as important prerequisite for social interaction. Progressive education is identified through democratic deals where freedom and participation are key pillars. Methods and practices in this learning environment are humane and take onboard divergent views based on mutual respect, incorporation of freely acquired experience into learning, mutual consultation, interaction and persuasion (Dewey, 1938, p. 34).

#### The Democratic Learning Environment

The Danish learning space was observed to be characterized by freedom of the teacher to influence the learning environment through the use of self-identified textbooks and method of teaching. "Jeg synes man har mere medbestemmelse i forhold til hvilke materialer man vil bruge. Og hvordan de egentlige skal præsenteres for klassen. Der kan man også bygge et system op der både kan være til individuel undervisning men også til klasseundervisning"<sup>35</sup> (Joan, 2019, Annex II, p. 10).

The Danish case also seemed to have practices that allowed free interaction between the teacher and the pupils. The pupils were seen to have access to the teacher and were seen learn on their own. They would seek help from the teacher and peers when there is the need for it (Annex II, 2019). The specially designed *learning corner* where pupils use play-dough to mold letters and figures as well as depicting abstract concepts in their own ways seemed to allow the pupils to transact with the materials creatively and joyfully (Observation Notes 2019). The *Qual*, a special class with a permanent teacher allows pupil to seek extra explanation regarding their learning process when they felt the need for it. These special initiatives are found to be innovative and

<sup>&</sup>lt;sup>3535</sup> I think one has more influence I relation to the kind of materials to use. And how they are presented to the class. One kan also build op a system that addresses the needs of the individual pupil and the class as a whole.

create room for their own learning based on the school's *learning to learn* approach (Kildeskolen.dk, 2019). The interaction between the pupils and the teacher is cordial and characterized by mutual respect. The pupils' free movement and learning through action seems to allow them to apply freely acquired experiences, thinking and reflections in their learning process (Dewey, 1938, p. 18). The Danish learning space has an element of traditional learning elements. Pupils are tested at each stage as a condition to move to the next stage. This might not be in the interest of the pupils and might be based on adult standards (Dewey, 1038, p.18). However, the pupil's access to the teacher seems to allow some form of instant and formative feedback.

The Ghanaian case presents a learning environment faced with challenges. The Ghana Education Service has prescribed books at every stage. Only approved books are used. The teacher doesn't seem to have freedom to influence policy decisions. The teachers explained that, the school lacks teaching and learning materials, furniture, textbooks and chalk (Observation Notes, 2018). There are broken desks packed at the back of the classroom. The community and parents are not very interested in the school (Observation Notes, 2018, Annex I, p.3). English is used in teaching, yet a greater percentage of the pupils don't understand English. This denies pupils active participation in the teaching and learning process.

"We use the child centered approach and the lecture method. The lack of TLMs makes the child centered approach very difficult and thereby mostly use the lecture method" (Adisah 2018 – class teacher).

She explained that use of English makes the child centered approach and interactive teaching hard. The pupils become active when the mother tongue is the teaching language (Adisah 2018). We observed limited interaction between pupils and teachers, making what is taught abstract as a result of the use of English. Biesta's concept of intersubjectivity, defined as the practical coordination of individual's use of language and communication as means of transaction in the learning space is interesting (Biesta, 1994 and Biesta, 2003, p. 13). Inability to express themselves during teaching means the pupils are denied possibility to transact their meanings and opinions in the learning environment. Furthermore, the less use of TLMs seemed to leave some of the pupils absent minded. This made the teacher impatient and made her to use of harsh words. The Ghana Education Service has abolished beating in Ghanaian Schools (Ghana Graphic <u>www.graphic.com.gh</u>, 2019), yet this is still practiced. Adisah stated; *"The cane is the language the children understand"* (Adisah 2018, p. Annex I).

Dewey noted that the ideal learning situation involves an objective learning condition. This objective condition defines the educator's practices - what is done and how it is done, words spoken and the tone of voice. It also includes the interactive materials and total "social set up" of learning environment. The objective condition is within the teachers remit to regulate and adjust to create a desired learning situation (Dewey, 1938, p. 45). The irony of the less democratic learning in Ghana is that, Ghana was one of the first countries to ratify the United Nations Convention on the Rights of the Children (CRC). Interaction with children revealed the following: "We don't learn well, because we play when the teacher is teaching"

"I will understand more if the teacher is patient". "I will understand more if the teacher doesn't beat me or my friends. When she beats our friends, we get afraid, because she might beat me too". "If the teacher likes teaching and explains more by speaking clearly. "I hate teachers because they use the cane and when they don't smile" (Interview with children Annex I, p. 6)<sup>36</sup>

The statements of the children are thought-provoking and serve as useful reference points for educational actors. The materiality, teaching and learning practices, pupils' ability and freedom to express themselves in the learning environment are essential for policy actors to reflect on.

#### Conclusion

This article concludes that factors such as, availability of interactive materials, freedom of pupils' expression, humane practices, organic communication in a language that is mutually comprehensive are important prerequisite for ensuring democratic learning environment for desired learning outcome. In the Ghanaian case, the tone and relationship between the pupils and the teachers were not cordial and the language of teaching denied pupils active participation in interactive teaching. In the Danish case, the specially designed learning corner where pupils seek to use playdough to mold letters and figures to depict abstract concepts in their own way created room for creatively and joy. The teacher was accessible to the pupils. Finally, the free movement and learning through action seemed to allow them to apply their freely acquired experiences in their learning situation. The disparities in materiality, teaching and learning practices and democracy of the learning environments between the two learning environments are thought-

<sup>&</sup>lt;sup>36</sup> The Ghana Education Service abolished beating by teachers in schools <u>https://www.ghanaweb.com/GhanaHomePage/NewsArchive/GES-bans-corporal-punishment-in-private-public-schools-716134</u>

provoking, seen especially in the context of global quest for equity and quality education for all as defined under the SDGs.

## Bibliography

- Agbenyega, J. & Deku, P. (2011) "Building New Identities in Teacher Preparation for Inclusive Education in Ghana" Current Issues in Education, Vol 14(1).
- Atta Mills, Cadman 2018: Politics, policy, and implementation: The 'Ghanaian Paradox' https://www.brookings.edu/blog/africa-in-focus/2018/07/18/politics-policy-and-implementationthe-ghanaian-paradox/
- Armah-Attoh, Daniel and Robertson, Anna March (2014), *The Practice of Democracy in Ghana: Beyond the Formal Framework* Afro Barometer Briefing Paper No. 137
- Dewey 1916, *Democracy and Education An Introduction to the Philosophy of Education* CPSSIA USA
- Dillenbourg, P. (1999) "Collaborative-learning: Cognitive and Computational Approaches" Elsevie.
- Rose, M. (2009): "21st century skills: The new buzzwords for educational reform". <u>http://newsroom.ucla.edu/stories/21st-century-skills-the-new-buzzwords-149812</u>
- Germaine, Ron et al (2016) Purposeful Use of 21st Century Skills in Higher Education Journal of Research in Innovative Teaching Volume 9, Issue 1, March 2016 Publication of National University La Jolla, CA USA
- Stavage, David 2005 *Democracy and Education Spending in Africa* American Journal of Political Science Vol 49, No.2 Pp. 343-358
- Schleicher, Andreas 2018 World Class How to Build a 21st-Century School System OECD Publishing

#### **Internet Sources**

- BBC World, 2017 Ghana Profile https://www.bbc.com/news/world-africa-13433790
- Ghana Education Service https://www.ges.gov.gh/divisions/basic\_education
- The United Nationa 2017 "Sustainable Development Goals Report 2017" New York https://unstats.un.org/sdgs/files/report/2017/thesustainabledevelopmentgoalsreport2017.pdf
- Ghana Ministry of Education 2012 "NATIONAL SYLLABUS FOR GHANAIAN LANGUAGES AND CULTURE (PRIMARY 4 - 6) - Curriculum Development and Research Division CDRD

 Wold Bank Human Capital Index 2018 https://photius.com/rankings/human\_capital\_index\_country\_rankings\_2018.html 12.03.2018

## Chapter 9: Appendix

#### 9.1 Annex 1: Empirical Data

#### Interview and Observation Guide -Ghana

The following are notes from observations and interviews with key actors and pupils of the Bagabaga Annex A school at the Sagnarigu Municipality, in Northern Ghana. The the school was visited within a two week period.

The Choice of Bagabaga Annex A was a recommendation from Mr Zakaria Andani. Mr Andani is the Deputy Municipal Education Director for Guidance and Counselling. Mr Andani is a long time friend of Shani. Shani made a call to Mr Zakaria Andani (Deputy Director of Guidance and Counselling). I needed his opinion and suggestion of the school to do the study. I told him the intention to do study with a rural school in the municipality due the pre assumption that learning challenges might be more visible in rurals school. After hearing the argument to select a rural school, Mr Andani stated indicated;

"You know what, you don't need to leave the center of the municipality to get a school with learning challenges. There are cluster of school in the Ridge Area that fall within the category of schools you seek to study" (Zakria Andani 2018 - phone call).

The Bagabaga Annex A was identified among the schools in the area.

Day 1: November 27th 2018

#### **Brief Introduction of the School**

The Bagabaga Annex is a primary and Junior High School in Sagnarigu. Sagnarigu is the capital of the Sagnarigu Municipality.

The primary School has a population of about ..... It is densely populated. The classrooms are filled with large class sizes.

#### Day 1

The first observation at the school. I met two teaching practice students.

- 1. Fuseini Kpalyogu Alhassan is a final year student of the University for Development Studies (UDS).
- 2. Ibrahim Faisal is a student from the Bagabaga College of Education (BACE).

Fuseini was busy preparing a teaching and learning aid when I came. The picture is shown below.

I introduced myself to the students and told them my mission. I told them I am researching into traditional and progressive education and how the learning environment influence learning.

Fuseini had very good reasons why pupils fail to understand what is taught. He talked about dyslexia and ...... I indicated that the method of teaching and the home might have influence.

The reasons why many of the don't understand what is taught is because of dyslexia. It is also due to lack of parental concern regarding the education of the children. The home is the major culprit regarding children's inability to study very well. They parents don't care".

My first impression. The class is very crowded with many broken tables packed at the end of the class. The space used for the broken tables can increase space in the class to free mobility of the children.

In a neighbor class, the teacher uses corporal punishment – the pupil is put to his knees with the hands rained in the air. "Does this still happen in 2018 in the 21<sup>st</sup> century"? I thought.

Sadia Alhassan is the teacher of P4A. Mr Wumbei Zakari Abdul Wahab is a parallel class teacher in P4B. Sadia is educated as a social studies teacher, but functions as a class teacher implying that she teaches all the subjects in the class. "As a class teacher, you are forced to teach subjects you are not trained to teach". You teach in ICT, yet there is no single computer in this school. The

Schools often have students from the University for Development Studies (UDS) and Bagabaga College of Education (BACE) and they help teach the subjects that I am not comfortable with".

During these times I teach in creative Arts, Dagbanli and English.

Mr Wumbei is trained to teach mathematics. I asked whether they cooperate in teaching and learning and they answered in the affirmative. Could you give instances of cooperation?

"Yes, for instance when one of us is absent the other takes care of the other's class". The pupils also have the same set of examination questions" (Alhassan 2018)

The classroom is not learner friendly. "When the sun gets hot it become impossible to teach and lean in such structures" Alhassan 2018

Do you have students with learning difficulties? "Oh yes many of them". We work with Discovery Learning Alliance regarding how to support Pupils with learning difficulties. They have provided a Learning Resource Center for the school. There is a television and CDs with learning content in especially numerals and literacy to enhance audio-visual teaching. The capacity of the teachers is built to address these learning challenges. The pupils with learning difficulties are given extra teaching after school. They get extra one hour four days a week.

#### 29th November 2018

Today, I am back to the school. The purpose if to talk about the challenges that affect learning from the perspective of Sadia Alhassan (the Class teacher).

How many pupils do you have in the class?

The boys are 20

The girls are 16 they are between 10 and 11 years old.

Would you be able to say how many of these children can read and write as defined by the educational standard? That is what they are supposed to be able to do in P4.

"In fact only 4 of the pupils can read as they are required". "I will say that 90% of them can not read and write as expected of them at this level of their education". (Class Teacher 2018)

#### **Observation and Reflections**

I wonder why she would be comfortably saying that such a big number of the pupils can not read and write when she is the teacher. I my opinion she shouldn't take huge part of any blame for the learning challenges?

She doesn't see it as a fault and explains that class 4 is a transition from P3 and further to P5. It means the teacher receives the pupils teach them for one year and send them to the next class.

What if she started p1 with the kids and take them all the way to P6? Would that make any difference?

Do you rotate the teachers sometimes for example where P4 teacher moves to P2 etc?

"We have not done that for the last 8 years" (ibid). The class teachers are stationed in the same class, but sometimes we do rotate"

What do you think accounts for the learning challenges?

"That is a big question especially when the school has enough human resource capacity. All permanent teachers in the school are professional teachers"

"I think the home is the major challenge". Pupils come back to school with homework they are supposed to do at home. Parents don't support the learning of their children. They don't seem to care about that. Sometimes we invite them for PTA and they don't come".

Parents don't seem to have the interest of their children's education. A parent might be able to tell which class the child is in. They ought to know which level and exactly which class, but unfortunately there is no cooperation between teachers and pupils regarding the learning needs of the children.

The last time we called for a PTA meeting no parent came. All the teachers were present.

Do you have Class parents meeting?

No we don't have class parent meetings. Parents might not show up when invited on issues regarding their own children. They fear the invitation might be about contribution to buy materials for the school.

The lack of textbooks is also a big challenge. We have not received text books from the Ghana Education Service (GES) for the past 5 years. The books we have are worn out. We have 10 textbooks to share to the many pupils without the books. The Books are also for P4A and P4B. We group the children to read a single book.

The teachers lack teaching and learning materials (TLMs). Even chalk is not given. The chalk we have is purchased through contributions from pupils and sometimes the teachers use their own resources to purchase chalk.

You get what is term as the Capitation grants. Could that be used to buy the needed materials?

May be the head teacher can tell you more about that. What I do know is that the grants can sometimes be in arrears. They can go three quarters before they are paid.

The schools lack everything; no furniture, books, dirty floors, broken windows, no TLMs, no parental interests, not government support, no community support, we lack everything. How can we guarantee teaching?

#### Comment

Many of the children sit on the dirty floor to write because there no chairs and tables for all the children

## What kind of method do you use to teach? Could the teaching method be the reason for the lack of proper learning?

We use the child centered approach and the lecture method. The lack of TLMs make the pupil centered approach very difficult and thereby mostly use the lecture method.

It is also a problem when English is used as the medium of instruction. That makes the child centered approach and interactive teaching hard. The pupils become active when the L1 is the teaching language.

Do you use the so-called learning from the environment or activity based method?

We take them out sometimes. For instance when teaching about the soil, we can take them out to show the difference in soils.

Because we do not have flowers here, we have a problem showing them that. In that case, we ask the pupils to bring flowers from home. We can also draw flowers. We can also take them to the resource center to show them videos of plants and objects.

#### Interview with Alhassan Kpalyogu (practice Student from UDS)

Alhassan talks about **dyslexia** and **dysgraphia** as the reason for the inability to learn. Further discussions reveal more as shown in the text here.

#### Question: Do you think the teaching method that is used here optimizes learning?

For the teaching method it is very pathetic, in it very pathetic I must be frank with you. Since I stepped in here, even though I have not been to all the classes, but the teaching methods the teachers are using wouldn't help at all. We have the teacher centered and the learner centered. All that they have been doing is the teacher centered they feed them (pupils) with information. At the level students (pupils) need things that they can play with – they need hands on activities and guided instructions, but all that they do is feed them with information, they will come stand talk, talk and go. That is what they have been doing. The say it is because of inadequacy of teaching and learning materials, even though we are taught the teacher is supposed to improvise TLM.

#### **Question/Comment: I saw you preparing the TLMs**

The teachers are supposed to improvise TLMs, but they are not doing it.

#### Comment: If you expect the TLMs to come from outside it would come

It wouldn't come by itself. The improvised TLMs help the pupils to get the understanding more than just talk, but if the pupils interact with the TLM, even the cardboard alone tells them everything. When they see it, they know what they are coming to learn. So just talking doesn't help. So the method that they are using brings about boredom. Because when the teacher is doing the talking alone the pupils will either be sleeping or doing something else. That one is a fact.

The Teacher centered method doesn't really involve the students in learning and we say that learning is self education, if the pupils are not involved it means learning wouldn't take place.

#### Question: You stated in our informal conversation that the reason why the pupils don't learn as required is due to the home? Does school have any part of the blame?

From the environmentalist perspective, learning depends on the environment in which you come from. So the environment in which you found yourself when you able to interact with the environment then learning will be able to take place. And when we talk of the learning environment we talk of the school and the home too. Piaget says that children are born with an innate capacity, but the behaviorist are of the view that tab

#### Observation

Today the topic was creative arts – it was theoretical visual arts as seen in picture ..... I asked if they have practical visual arts and got only one student with fairly good drawings.

#### Interview with Saadia Class Teacher – 3/12, 2018

Today we look at the system of lesson planning.

How are your lessons planned?

We have a standard lesson plan frame that all teachers use.

- Time/Duration
- Date/day
- Aspect/Topic/Subject
- TLMs/ teacher/learner/Activity
- Core Points
- Evaluation

The lesson plan is guided by the GES text books and defined syllabus. The Aki Ola series have been recommended for use. The teacher can only use the prescribed text books for preparing the lesson plans. the teacher is to have daily lesson plans, but the standard practice is weekly

We continue our discussions on learning difficulties.

#### "The 21st Century Learning Environment – disparities, challenges and prospects" MA in Learning and Innovative Change - Aalborg University, Copenhagen Thomas Sam-Ansah & Sani Mahama

## What do you think pupils come to school, but learning almost nothing especially reading and writing?

#### The class size is a big problem

There is also the policy of mass promotion – send the pupils further regardless of how bad they perform, except if parents agree to repeating the pupil.

#### Do you engage parents on learning of their wards?

It is difficult to engage parents. If you invite parents to the school they will not come. We have given up engaging parents. So no, we don't engage the parents.

## You indicated to me that about 90% of the pupils in your class can not read and write, don't you feel responsible for their learning deficits?

No, because the failure occurs at the foundation stages – the lower primary. This is where they should have learnt to read slowly. "The best place to learn is the nursery and lower primary"

It is sad to say that, at P4 we still teach two and three letter words. This should have been done at the foundation stages. The irony is that unqualified teachers are put at lower primary level or foundation level.

Will you call this logic turn upside down?

Well, yes, because this is the reason why many of the pupils never really learn at these stages. The best qualified teachers with years of experience ought to teach at the foundation classes to build strong basis for further learning.

**What is your position on beating the children?** I see beating of children in this school – Ghana ratified the rights of children implying that the rights of the child must be protected. Beating them is violation of their rights. What do you think?

First of all a teacher needs the approval of the head Teacher to beat the child. But teacher don't really follow that advice.

"I will also say that caning is the language the children understand"

#### What method of teaching do you use?

I use the child centered approach to teach, but language barrier is a is problem? Because we use English as the medium of teaching and many of the children can not really use the language actively.

#### Again do you feel responsible for their inability to take active part in teaching and learning?

As I said earlier, it is not me to take the blame. The foundation teachers failed the pupils.

#### What do you think about starting and following a year group from P1 to P6?

It depends on the school's policy and style, but that would be a good idea. That teacher would not push the blame on any one else, but him or herself.

The children are naturally good, but lazy

#### How do you motivate the children to learn, become active and not passive learners?

I use appellation "clap hands, well done etc"

#### Interaction with five Children

Many of the pupils didn't really speak and understand English therefore some of pupils were interviewed in the local language, Dagbanli. Efforts are made to make the sentences comprehensive and some translated to English.

#### Kyeremaa is 11

I like to go to school because I like to learn new things and become future leader.

I hate school when my friends tease me. Sometimes they tell lies on me and I hate that. Because it makes me sad.

#### Abukari 11

I go to school because I want to learn – I hate to go to school because other children beat. I hate to go school because some teachers beat. I also hate to go school because I get zero percent.

#### Cecelia 11

I am always happy to go to school, because the teachers are good.

#### What are the things you wish to have in your school?

- 1. Playground with swing
- 2. Toilet and washrooms that don't smell because we don't have toilet, we miss important things in the class. We go outside to the bush for toilet.
- 3. Computer center
- 4. Nurses to look after our health
- 5. Library
- 6. Teachers that smile and don't beat

What things that make you learn well or affect your learning?

"We don't learn well, because we play when the teacher is teaching" Kyeremaa

We don't learn well when there is noise in class and others are fighting

"I don't learn well when I sleep in class" - Cecilia

"I will understand more if the teacher is patient"

"I will understand more if the teacher don't beat me or my friends" When She beats our friends we get afraid, because she might beat me too" – Abukari

"if the teacher likes teaching and explains more by speaking clearly.

"I hate teachers because they use the cane and when they don't smile" Cecelia

#### Pupil - Teacher and Pupil- pupil interaction

#### **Observation Notes**

Communication between pupils and teacher is almost one sided. The teacher indicated she uses child-centered approach, but admitted that it is difficult due to the pupils inability to speak and understand English.

The teacher constantly asks the Pupils "Do you understand?" They would answer in chorus "Yes madam or Yes Sir". Some of the pupils would still answer "Yes Madan" when the male teacher - a student intern" asked same question.

The communication is one-sided and unequal. The tone is sometimes harsh and demeaning to the children. "Look at his dirty face", Che ma" literally, "move away".

#### The 10<sup>th</sup> of December – Examination Week

The examination forms part of the pupils terminal score. The end of term examination takes 70% of the total score. The class tests and exercises take 30 percent.

The school has no printing facilities and all exterminations are printed at a printing press outside the school. The pupils are charged 5GHC as contributions to the extermination.

Due the FCUBE policy, teachers will have to get the approval of parents to charge for extermination fees else extermination question will have to be written on the boards. "Without the approval teachers will have to write questions on the board"

The teachers read the question loud for the pupils apparently due to the pupils inability to read.

"The teacher must read the questions for the pupils because they cannot read".

#### What are the three major things that in your opinion enhance learning?

I will say;

- 1. Teaching and learning materials
- 2. The learning environment these are furniture, ICT tools, and manageable class size.
- 3. More capacity building for teachers for instance the creative Arts is new subject that requires capacity of teachers to teach it. Many teachers lack ICT skills, yet are expected to teach it.

Do you have what is termed as the school based inservice training?

"We almost never have the school based inservice training"

We do have staff meetings – the agenda is often about practical issues and performance of the pupils. We also have emergency meetings.

Imagine teaching eight subjects and managing over 50 pupils is not possible and so GES must do something about the-jack-of-all-trades mentality. To teach and mark exercises of over 40 pupils daily is simply not possible".

In the JHS, a teacher teaches just a subject or two at most. They might have just about one to hours of teaching daily and primary school teachers have to teach from 8-14 and in all subjects. That is simply not right.

We meet at TZEDEK – an NGO and share ideas. I heard a story about a teacher having 120 pupils in class. Hos is that possible?

"How do you burn the fire in children" William Butler Yeates talks about "education not about filling of bail, but lighting of fire". How do you light the fire in your pupils?

"To turn the fire in the pupils, the teacher requires the support of the parents".

Some of the children work to support their parents' income and they come to school tired and have no energy and motivation to learn.

Today a boy presented his examination paper to the teacher without his name. Please write your name. "Masa man zi Mohammed sabbu" Literally, "Master, I don't know how to write Mohammed"

#### The Class Test - My Self Essay

To document the pupils ability to write they pupils were asked to write briefly about themselves. The My Self Essay.

Look through the essays reveals major writing difficulties of the pupils. many of them actually copied from each other and many of them seem to have reproduced their texts from memory. Two or the pupils could not read what they have written themselves.

#### Interview with head Teacher – Mohammed Akugri Ibrahim 3/12, 2018

I have been the Head since 2016.

**Teachers do their best but no support from educational authorities and parents.** For education, it has to do with the teaching and learning materials, and the teaching learning materials we are looking at from both government and the support that both parents can also give to the children. But you realise that on the part of the government, I can't remember the last time we have received text books. All the textbooks we have been using outmoded. You get the point?

The parents too are not helping. When you enter the class and if you look at the dressing of the pupils. Dressing well alone puts some confidence in the child as he/she comes to school. But this place, its like the parents, you realise that when the just bring the child to class one that ends it. When school reopens for about third week children will not have exercise book to just write so they will just come to school. It means that, at sometimes and I have to come and sack the pupils to go home and bring exercise books and pens. And you realise that, even if you give them the homework, they will go home and bring it back ...... – every building depends on the foundation - how good the foundation is. So at the lower level if such things are not provided, it can not be. And currently if you go round the classroom, even the upper primary, you know the exercises are supposed to be in the class and saved in the cupboards, but we don't have cupboards so you give work/exercise to the child, the child gets zero. Tomorrow when the child comes and you ask to see the corrected exercise you would realise he tears it off so you can not trace the exercises to see what has been done. So for this school that has been our challenge, the parents. The parents are not helping. At least when the child comes home, ask the child what have you learned, what is the homework given. To be frank, I don't lack teachers here. In all the classes, I have two-two, even three - three teachers with national service teachers. So they are doing their best.

## Question: Could teaching method be the reason why many pupils fail to learn the requisite skills?

The teaching methods, I don't want to believe so because all the teachers I have here are professional teachers, I don't have any... and I have gone round to observe the .... And I will even like you to observe how my P1 teacher delivers the lesson.

And at time too the number, the number in a class ... the class size. Last year could believe, my class, they were 91 in one class – even if the teachers are five how can effective supervision takes

place? So that is why we struggled and put up that building over there. So as they were going to P2 we were able to split them into two so we have reduced that particular class. But right now if you go to the class 3 and look at the number there. One class they are over 60 getting to 70 in that particular class. So these are some of the challenges we face.

## Question: But I just observed, I think you mentioned the teaching and learning materials. I also noticed a teacher delivering a topic on ICT and he had to draw a mouse on the board.

Yes – as you have seen in this office, you can even find a single computer in the school. These are some of the things. And here they say you don't pay fees, so even.... I could remember sometime ago they were directing that we should not collect exams fees. Some of the parents were excited. So you only write on the board and writing on the board, how many questions can you record for the pupils to write?

As I was talking, we don't have a single computer, so in terms of ICT, the teachers are teaching abstract and you know you have to teach practical especially at this basic level, involving....erh child centered approach is the best way to always involve the child. And ICT the child must practice in other to perfect it. So as we are teaching the abstract, you go to the JHS, it is the same thing – so that has also been the challenge, no single computer to introduce the children to how to even hold the mouse so that the child will pass through it up to JHS. A child at JHS might not even know how to hold a mouse. So we only teach and he will only sit to imagine. So for that one it is also there. And as you can see, not only the teaching learning, the infrastructure too is there. You witness how the children are struggling to sit in class. No chairs. How you sit in class can make you pay attention. But the children struggle and can not pay attention.

# Question How is your leadership like, is it may be the same as the leadership style by the head teacher when you went to school? How is your leadership different from ten fifteen years ago?

My style of leadership is not the "bossy" type. I always involve the teachers. I am free with my teachers so if he has a concern you come to me. But that doesn't mean (anyone can take me for granted). If you are doing your work, I will not take it. I have cordial relationship with the teachers. I go round the classes just to see what is happening. If the teachers have issues, they can easily approach me. Anytime I have meetings, I have been telling them, being the head doesn't mean am

more (important) than them. But it is just an opportunity for one person to drive the whole school. It can not be without a leader – and way the system is going that protect yourself and I will also protect myself – why do I do that? Do what you are supposed to do. Write your lesson notes, give the number of exercises. I don't have to come to class and you have not done the number of exercises per term. We know, every week. Maths this is the number of exercises you are supposed to do. Maths and English are supposed to be not less than three. So if I come and check and you are not pulling up, I have to put it in place. Currently we have what we call video lessons which are being introduced. It is part of the system from Discovery Learning Alliance. Just recently, I called the teachers to tell them that I am going to query all of them because I have given them a notice that every teacher must use the place for at least two times a week. We are in the 11<sup>th</sup> week and I expect that each teacher would have used the place at least 20 times. But when I came and looked for the log sheet, we have a log sheet any time a teacher uses the place, he/she logs in the topic treated, video that was used and through that I can be able to see the usage. When I counted the records none of the teachers met the required target. I called all of them and told them that I am going to query them for them to answer because the time table for the video lessons is there, but I realized that it is not easy for them to always use it so I made it simple – use it twice a week so that you can meet up the target.

## Question – Why do you think is the reason why they are not interested in using the Learning Resource Center?

It might be because they are used to the traditional way of teaching – you know teachers are such that they always think moving and coming in is waste of time and some of them also feel reluctant to bring to children to the center (Mr Amoah 2018, p. 9).

## Question: Would you agree that the teachers use the class more than the environment outside the class?

Yes, exactly because I have been telling them and I have never seen teacher bring the children to just observe the environment. Sometimes you can even bring the children outside, give them the chance to observe what is happening in the environment.

I told them "we learn by practice" practical, especially children involved in activities make them comprehend the more. I told them, I have never seen any teacher bring the children out to observe. Some of them assured me that they do just that I don't see.

# Question How is teamwork practiced in your school? I am attached to P4A and there is P4B, how do they cooperate with each other?

Very good!! – it not official, but if you go to P4A and B, the teachers have divided the subjects amongst themselves. The Maths teacher teaches both classes and the English teacher will also teach both classes. They swap. From P4 to P6 that has been the relation because there are two classes A and B so the teachers have been swapping and they have divided the subjects among themselves. So if you are teaching maths, science or ICT, you are taking all the classes and that is how it is done.

#### Question: Do you feel like getting the required support from the education authorities?

Yes, errm yes because what they get is what they give. So anytime materials are in, they call upon me to come for my share. So I believe that whatever they get, I will also get, the school will also get its share.

# Question: Aside of the tangible materials, what kind of feedback and inputs do you get from the above (authorities)?

At times our Circuit Supervisor comes round to check the teachers' lesson notes, the exercises that has been done. When school reopens, when he doesn't visit the school, he will at least visit twice. He come when school reopens and when it is getting to closing. He comes to see what is going going on.

#### Question: Am told you get what is known as Capitation Grants?

Yes

#### Is it enough and what do you use it for?

As for the Capitation Grants it is not enough, but it is not also bad. You can imagine when schools reopens for instance there was no chalk, and by then we had not received registers and lesson note

books, so when you receive such monies, I have to buy chalk, lesson notebooks and some other necessary things. For example cardboard, colour chalk especially for the lower primary?

#### Question: Is that what it is meant for or are you using it for that purpose?

Yes! But it is not me, we sit down. Mostly when Capitation Grants are in we sit with the teachers to discuss it. You can see this from the last minutes of our meeting. We all decide regarding how to us it.

#### Question: I want to know whether it is also meant for Capacity building?

Yes, in-service training is part of the Capitation Grants. Because I remember when I first came in last two years or so, I organized an in-service training so I invited an officer from the office to come and take the teachers through the lesson notes preparation just to remind them of certain things. So yes capacity building is there and you can use that for capacity building.

## Question: But will you agree that the Capitation grants is used for the tangibles such as chalk, maintenance rather than capacity building?

Yes, majority (great part) of the money goes into those ones. Because I will not hide it from you. The maximum you can receive per term in 800 Ghana Cedis. Per term is three months. And the money is not enough. Sometimes we even do some expenses. But there are certain things you cannot use the Capitation Grants for. Such as major works.

#### Question: What are the things that should be in place for the school to function optimally?

The first thing is infrastructure. If you go to the lower block, it is an eye saw. It is just like a death trap. So if the infrastructure is put well in place, we have well infrastructure, so that the pupils will be in smaller groups in classes, supervision can be very effective. And the parents should also help us. Children need home support from parents to do homework. The child might sleep over the book, a couple of days, but in between these few works will be picked

## Question: You by this appealing to the government, other organisations, the community and the family?

Yes! To the community to also push us a little. We need resources to expand the facilities. We have PTA but they don't pay. But when we admit new pupils they have no option and we use the

entrants fees to build extra blocks. If government and parents push a little, the school will be a nice place to be. The teachers are there and they are willing and they are hardworking. As for me I tell my teachers that if they can not deliver as I require them, they can come for transfer. No one is born to be at one place forever, but as far as we are here let us do our best so that in future when we are not here somebody will realise we left a legacy. So infrastructure and teaching learning materials, we don't have textbooks. We don't have if you go round. I can even show you the P4 readers. These are all the books we have (about ten almost worn out copies). And even some of the classes have no text books. We even appeal to some of the parents to try to get at least one reading books because you realise that if the child gets to P4 or P3 and can read, they easily understand the other subjects. So my main priority has been the reading( ability). I even told all the teachers that the the last 30 minutes of each day should be used to teach reading. So the last period should be used for spelling, dictation or what ever so that the two letter, three letter words will help improve the reading.

#### The Last Day with Saadia

State three major issues that will enhance teaching and learning

- 1. teaching and learning materials
- 2. the learning environment this includes the learning space around the school and in classrooms, furniture and ICT tools such as computers and books
- 3. more capacity building for teachers for example creative arts is a new subject. teachers need the capacity in this and ICT to teach effectively.

It is a big problem and over expectations on class teachers. "A teacher to be teaching 8 subjects is not possible".

GES must do something about pupil-teacher ratio. "To mark exercises and teach 40 pupils daily is too much"

In the JHS a teacher teaches only two subjects. We work with this organisation called TZEDEK - a UK based NGO. We meet there to share stories and ideas. I hear stories such as a teacher handling 120 pupils in a class. "How is that possible"

#### How do you motivate pupils to learn?

"To turn on the fire in the child, the teacher requires the support of the parents" Saadia

"Some of the children work to support parents income and so they come to school tired and lack the resources and energy to learn"

#### Do you have internal staff training? The so called in-service training?

"We almost never have in-service training, we have staff meetings at the beginning of the term and one at the end of the term". We do also have emérgency meetings"

#### What will agenda items of your meetings be?

"Major items of the agenda will be performance of the pupils"

On this day, the pupils have end of term exams

The test questions are printed out. The teacher reads the questions out loud to the pupils.

#### How come Mr Alhassan reads the questions out to the pupils?

"That is because many of them can not read the questions and so it has to be read loud".

Many of the pupils don't seem to understand the questions and what they write is hard to read. The pipuls return their answer sheets to the teacher.

"Hey! you have not written your name on the answer sheet".

Master "man zi Mohammed sabbu" Literally, Sir, I don't know how to write Mohammed - Pupil.

The lack of textbooks is also a big challenge. We have not received text books from the Ghana Education Service (GES) for the past 5 years. The books we have are worn out. We have 10 textbooks to share to the many pupils without the books. The Books are also for P4A and P4B. We group the children to read a single book.

### 9.2 Annex II

Interviewguide Kildeskolen 2019

#### Hvor længe har du undervist i folkeskolen?

Jeg har undervist i 20 år men ikke her alene. Jeg har også været på almindelige folkeskoler.

hvad er forskellen på at være underviser her og på alm. Folkeskole?

Jeg synes den stor. Jeg synes man har mere medbestemmelse ift. hvilke materialer man vil bruge. Og hvordan de egentlige skal præsenteres for klassen der kan man også bygge et system op der både kan være til individuel undervisning men også til klasseundervisning. Jeg synes at den metode vi bruger her – den er rigtig god fordi man kan gå inde på det enkelte barn og finde ud af hvad for et niveau de ligger på også kan man bygge barnet op derfra, så de ikke hele tiden skal følge klassen, også bare gå frem, for så vil man efterhånden tabe nogle dem fordi de er ikke lige allesammen. Så det her, det er at vi har de forskellige niveauer og vi kan bruge det i samme klassetrin – det synes jeg er fantastisk.

#### Hvor mange elever har du i klassen?

16 elever

#### Hvor mange timer bruger du til at forberede dig og evaluerer (rette opgaver)?

Om ugen eller hvad?. Uuh, det svinger meget. Det er meget forskelligt men jeg sige; vi har jo vores færdigsyet materialer og hvis jeg skal justere så justere jeg men det er meget lidt for det er meget standard . så jeg vil sige at jeg retter nogle stile engang imellem, jeg retter nogle tekster de har skrevet og retter nogle opgaver de har lavet men hvad kan det blive. Uh, det er svært.

#### Er det så nemmere at sige pr. dag?

Jaa, måske nemmere pr. dag, men tænker du at det er efter skoletid eller i mine pauser?

Det kan være den tid du bruger før og efter undervisningen.

10 timer om ugen tænker jeg sådan rundt regnet. Og mindre. Og igen, man kan sige; hvad er vi i gang med. Fx med engelsk der kører det bare. Som du kan se, jeg retter lidt i timen også. Hvis der er tid til at rette deres opgaver i timen mens de står ved siden af mig så gør jeg det også kan de komme videre hele tiden. Det skal helst være sådan at jeg ikke skal have tingene med hjem, men vi kan rette det med det samme og tjekke det med det samme også kan de gå videre. Det er faktisk den måde jeg kører bedst på. Og det kan jeg gøre i de små klasser – det er ikke altid man kan gøre det i de store klasser. Men der hvor jeg er, der er det sådan jeg gør. Også i dansk fx der vil jeg helst gerne rette med det samme og der er sådan faste programmer så jeg har ikke så meget forberedelsestid. Jeg kender jo programmerne, jeg har været lærer i 20år så jegkender det næste step der kommer så jeg skal ikke hele sætte mig ind i noget nyt eller noget anderledes. Så 10 timer er måske endda også meget – jeg tror ikke engang jeg bruger fordi jeg kender det. Også fordi opbygningen af tingene er som det er så er det også nemmere at lige sige at tjek-tjek-tjek i stedet for at man skal sidde og samle en hel masse sammen, men der er hele tiden en ny linje "har du lavet det, har du forstået det? Godt, næste". Også tjekker jeg lige hvad de siger eller skriver

#### Hvilke læringsstrategier /metoder, didaktik benytter du dig af i din undervisning?

#### Synes du at den læringsmetode I benytter her, optimerer læring hos eleverne?

Det synes jeg 100%. ja, for det er ligesom byggeklodssystemet. Du har en byggeklods så lærer du om dem, også tager du en ny byggeklods og putter ovenpå. Du tager din læring med hele så du har lært så du ikke begynder at tage noget nyt ind så du ikke bruger det som du har lært. Hele tiden bruger det – altså når man anvender ting så husker man det også bedre også bruger man det til at bygge ovenpå hele tiden. De får en meget bedre forståelse af tingene og anvendelse af det så det går igen hele tiden. Også det du har haft, det går også igen i det nye så du hele tiden husker det og bruger det og det er det rigtige gode ved det for ellers så – hvis du lærer udsagnsord et andet sted, lad os sige en anden skole, så begynder du at lære det anden, tredje og fjerde . Og når du skal til at lære udsagnsord igen når du kommer længere hen så har du måske glemt dit udsagnsord og spørger "hvad var det nu og oh nej osv" også skal man tilbage men her der putter vi udsagnsordene ind i den nye historie der handler om tillægsord eller et eller andet så du hele tiden bliver mindet om det og tager det med op. Og det er det system det bygger på her.

#### Oplever du læringsvanskeligheder hos nogle af eleverne i det fag du underviser i?

Ja, jeg vil sige at – det har jeg jo. Jeg har i hvert fald 3 børn der ikke læser så godt. De er lidt tilbage i deres læse rutine og det er det vi kan bygge op med de materialer vi har. Vi har også nogle læsekurser som vi bruger rigtig meget nå de netop skal lære at affotografere teksterne og ordene. Og det kører meget på at det er med deres egen lyd i ordene. Og du ved med dansk, det er jo frygteligt sprog for der kan "o" lige pludselig sige som "å". Eller et eller andet. Men her bruger vi den rigtige lyd til at starte med sådan så at de starter med at lære at det bogstav har den lyd og født med den lyd men når vi så begynder at twiste lidt med ordene så får de. Men det kommer først senere. Og de børn jeg har i min klasse der har det lidt svært med at læse, der kører de først grundlæggende disse læsekurser. Også er det med at når man begynder at putte engelsk ind så tænker man at nu er de meget godt med. Man kan ikke begynde at lære engelsk, hvis du ikke kan dit dansk ordentligt – så er det rigtig svært. Så vi passer på med de der gradienter som vi har. Man skal ikke have for høj gradient for så taber du det her barn også har du store problemer lige pludselig. Så man skal hele tiden passe på – og det er også det vi har i vore "Qual" afdeling som du sikkert også har hørt. Så når de begynder at halte llidt og knække lidt, og bliver sure og de gider ikke og går ud ad døren så ved vi præcis "aah, de er ramt ind i noget her og det skal vi have håndteret også kigger jeg på, hvor det går skævt hen nu". Også kan jeg sende dem op i "qual" og skrive et lille notat og sige at de har et lille problem og om de kan hjælpe med det for det får jeg ikke tid til i klassen i timen også kan de. Men jeg har børn der ikke helt er op på fjerde klasses niveau. Det tænker jeg bliver svært at finde i alle klasser uanset, hvor du var henne. Der vil altid være nogen der er lidt bagefter. Der er ikke to børn der er ens. Der vil altid være nogen der er lidt bedre til matematik og måske dårligere til dansk eller omvendt, og sådan vil det jo altid være men vi får dem med. Jeg tror ikke i vores 30 års lange historie har måtte opgive og lære et barn noget - jo, hvis de ikke selv vil så kunne vi ikke gøre noget. De skal selv være villige til det. Men vi gøre hvad vi kan og vores metode virker, hvis de også gerne vil. (9:04)

#### Hvis ja; kan du pege på nogle årsager / faktorer der forårsager/medvirker til dette?

Altså, det er mange gange jeg har, og det er det jeg har oplevet. Altså, jeg har lavet noget der hedder FERGO og det er pangdan og det er sådan en hjemme undervisning til den her studieteknik. Det er det samme studieteknik men det er bare når børnene har været i skole og de kommer hjem og får ekstra undervisning privat. Det har jeg lavet i 10 år også inden jeg var kommet her. Der oplever jeg at mor og far kommer og siger at" de er ordblinde, de kan ikke – farfar var ordblind,

far er or ordblind og Peter er ordblind", de kan ikke læse. Også har jeg oplevet at hvis jeg har lært dem lydene på bogstaverne – bogstaver, de er jo både lyde, symboler, har en og lyd og har et navn og når de lærer dem rigtigt. Der kan du se at vi har vores ler, vi bruger meget ler for at få det visuelle af det enkelte bogstav også træner man lydene på det og når de lyde sidder fast så begynde vi at sætte lydene sammen til et ord og når ordene så giver mening ud fra de lyde og navne de nu har, så kan de læse. Og det jeg oplevet rigtig mange gange igennem tiden at et barn er blevet opgivet enten af læren eller af mor og far og vi kan ikke og det her – også er der gået en måned så læser de. Så det er min erfaring med her og det grundlæggende er at de skal lære lydene. Det lydene – hvis de ikke har det så kan de blive kaldt for ordblinde eller ADHD eller whatever you name it, for de gider ikke. De kan ikke også gider de ikke, de kan jo ikke magte opgaven hvis du siger til dem at de skal. Hvis de ikke har lært det så kan man ikke. Jeg kan heller ikke afrikansk hvis jeg ikke kender ikke dit sprog eller lydene eller ikke har lært det og hvis der er bogen der siger at jeg skal så blive jeg jo tosset for det kan jeg jo ikke, så render jeg rundt og spiller klovn. Og det er det der sker hvis de ikke har lært det så kan de ikke men når de lærer det så bliver det et barn der kan læse. Det er min oplevelse af det men så kan der være mange andre ting; de kan være ordblinde, selvfølgelig kan de da det, klart, der kan være andre læringsvanskeligheder; det kan være private, det kan være hjemmet. Der kan være mange til det som også kan håndteres, men som vi nogen gange ikke ved noget om også har vi ikke en fair chance for at hjælpe. Vi må kun gå til det faglige, vi kan ikke rigtig gå ind til andre ting. Det også være en fødsels fejl; altså hvis de ikke har fået ilt nok ved fødslen eller. Altså der kan være mange ting til det men vi ved i hvert fald at vores værktøj virker hvis alt andet er i orden så virker det hvis vi lærer lydene og sætter bogstaverne sammen med de lyde så kan de. Det er meget simpelt men der kan være meget mere til det jo.

#### Ift. det her "Qual" rum, er der en ekspert lærer der står for det?

Vi har en lærer der kun laver det. Også Anna, hun har almindelig lærer funktionen men også qual funktionen. Vi har én der fast er der altid fra 9-14 hver dag også kommer Anna ind og hjælper hvis der er mange eller. Hun har også nogle timer derinde. Men det er ikke et rum vi putter børn ind fordi de larmer; nej det er det ikke. Men børn larmer når de har vanskeligheder. De kan ikke koncentrer sig; de synes det er kedeligt og læren er dum og alt muligt. Også ved vi lige præcis at der er en af de 3 studie barriere som Anna har fortalt dig om som er i det her læresystem. Det er kun de her 3 ting så hvis du kan de her lagt ned så hører du ikke fra børnene for så arbejder de og

de synes det er sjovt. Men vi ved og det er vi trænet i; hvorfor larmer de? Så kommer man og spørger; har du problemer med det, det eller det også finder vi ud af problemet, løser det og ingen problemer og ingen larm. Men det er ikke altid vi har tid i timen som sagt også har vi vores ekstra hjælp her i qual. Og de larmer jo fordi de ikke kan finde ud af det, de keder sig jo. Det er jo det der er problemet. Det er ikke fordi de er uartige eller. Vi har nogle gode børn, de skal bare have den rette mulighed for at kunne løse deres problem så har vi ingen larm. Så det er ikke afstraffelse at de kommer heroppe og der er nogen der tror; ej, nu skal jeg til qual og nu skal jeg straffes, nej faktisk ikke. Det er en kæmpe hjælp. Det er kun virkelig hjælp, ekstra service som ingen andre skolesystemer bruger – ikke nogen jeg kender i hvert fald. Men vi bruger det og det er guld værd. Og nogle spørger endda selv om de må gå i qual; må jeg gå i qual og lave mine ting – ja, det må du da gerne men det er ikke altid der er plads men så foretrækker de selv at sidde der fordi der er færre børn er der måske lidt mere ro endda ift. det de nu laver i klassen. Men så foretrækker de selv at gå deroppe for så har de hele én de ved de kan spørge til et eller andet og få hjælp til.

### Synes du at læreren og skolen alene skal stå til ansvar for børnenes udvikling under deres uddannelse?

Fagligt? ja, det er vores ansvar, men det er også forældrenes ansvar. Vi kan ikke hjælpe et barn, hvor der ikke bliver bakket op fra derhjemme. Altså, forældrene har en stor opgave og de skal hjælpe os med at få et dygtigt barn. De må ikke sige at det er jeres ansvar for så har vi ikke et dygtigt barn for de skal gå hjem og lave lektier fx og der skal vi have forældrene med og forældrene skal også bakke os op med at der er noget der hedder hjemmearbejde og der er noget der pligter og det skal de have med for ellers kan vi have børn der siger "det gider jeg ikke". Min mor og far siger. Altså, vi stiller krav og hvis de ikke er vant til at man stiller krav så kan de ikke lære noget for de vil ikke lære noget. Så vi skal lave et samarbejde – helt klart et samarbejde med hjemmet også.

#### Involverer I forældrene i elevernes udvikling? Hvordan og i hvilken grad?

Altså, vi starter når de kommer her den første dag til et interview og siger vi vil gerne have vores barn til at gå her eller vi vil se hvad I kan osv. Så kan vi fortælle dem vores strategi med at de er en del af opgaven at få et dygtigt barn. De skal være ligeså meget en del af processen for at dygtiggøre dette barn. Det kan vi ikke løfte alene. De skal også hjælpe hjemmefra

#### Hvordan bidrager du til at skabe orden og disciplin i klassen?

Ja, jeg gør mig meget kendt med hvad for nogle grænser jeg har og hvad for nogle rammer jeg. Det er også et samarbejde mellem lærer og elev. Hvis kemien ikke er i orden, så bliver det svært at lære et noget. Hvis jeg heller bliver uvenner med et barn eller de synes jeg er dum eller et eller andet, så kan det være svært at lære barnet nogle ting. Men jeg vil sige, som udgangspunkt er jeg altid flink og sød men jeg har også, hvor jeg siger det gider jeg altså ikke gøre eller i hvert fald, afstikker mine grænser for dem meget tydeligt. Det bryder jeg ikke om eller det vil jeg ikke have eller jeg kan også vred hvis der er nogen der går ud over den grænse. Så kan jeg sige; nu går vi altså derude og snakker sammen og siger jeg vil gerne have det sådan, sådan og sådan i mine timer. Jeg kan jo kun tage ansvar for mine egne timer. Og det ved de meget tydeligt med mig – altså jeg synes at jeg gør det meget tydeligt men på en god måde. Det handler om at vi skal have god kommunikation. Hvis vi finder ud af det samarbejde så er der altid en god stemning i klassen for så ved de hvor de har mig henne. Men jeg gør mig også tydelig og jeg er meget ens hele tiden. Det er ikke sådan at jeg er den ene dag er aaargh også – for så bliver de forvirret. Jeg er meget struktureret vil jeg sige. Sådan altid smilende og altid venlig. Jeg er gode venner med mine børn men der er forskel på voksen og barn og det er den tydelighed jeg synes er vigtigt. Det er ikke altid den kommer hjemmefra – der har vi mangler i hvert fald i vores opdragelse forløb i landet her, jeg ved ikke hvordan det er i hele verden men jeg kan i hvert fald tale for mit eget land og der vil jeg sige at efterhånden som generationen de kommer længere og længere henne så bliver opdragelsen løsere og løsere. Og jeg synes jeg bruger nogle gange meget tid på opdrage i stedet for at undervise. Og det er hvis der kommer nye børn ind der har andre måder at gå i skole på, så skal de lige pludselig til at lære, OK det gør jeg så ikke her for det vil hun ikke have. Og det kan man bruge noget tid på, det er klart, hvis de ikke har været vant til det. Hvis de ikke ved det så skal de lære det. Men jeg gør mig meget tydelig og de ved hvor de har mig hen og det fungerer rigtig fint. Jeg er ikke en meget sur stram tante og det behøver man ikke at være. Du kan bare helt konsekvent, de ved hvor de har dig også er det. Også har vi det sammen det godt.

#### Sker der en kontinuerlig opfølgning i børnenes udvikling fra de starter i 0. klasse?

Ja, vi laver nogle prøver. Vi laver læseprøver og små skriveprøver hele vejen op. Og det gør vi ca. 2 gange om året for at hele tiden at se om der sker en fremgang eller hvis den fremgang ikke sker, hvad kan vi så gøre. Så laver vi sådan et lille program til den enkelte elev; han skal lige læse lidt mere om et eller andet, hvad han nu har problemer med. Og et gør vi 2 gange året sådan at vi måler hvor langt de er kommet, er de kommet videre eller står de stille eller skal vi lave en hel anden indsats for det barn, så vi hele tiden har en pejling eller en måling af. går det som det skal.

#### Hvordan motiverer du eleverne til at lære og være mere aktiv i timerne?

Du kan se at vi sætter nogle mål. Når de starter i timen, så har vi det her program de kører efter med hvad for nogle ting de skal lave også laver vi nogle mål. Også sætter jeg det nogle gange lidt højere – de får ikke skæld ud hvis de ikke når deres mål men det sådan at de ved, hvad skal jeg, hvor langt er jeg. Det er sådan en forventningsafstemning man laver lærer og elev imellem. Jeg tror du kan nå dertil også sker der ikke så meget hvis man ikke kan nå dertil, pyt med det men så ved man at man har en aftale hertil. Men jeg bruger også tid på at fortælle dem at det er vigtigt at de skal blive dygtig. Det er vigtigt at de ved at de kommer ud af 10. og tror at de bare kan være rengøringsdame eller skraldemand for det kræver en uddannelse i dag. Man kan sige at jeg skal bare sætte varer op på hyldene i Brugsen – det kan man ikke bare gøre i dag for det kræver at man har en uddannelse. Der er krav i dag til de unge mennesker der kommer på arbejdsmarkedet i dag. Så det bruger vi faktisk tid på at snakke om. At det er for deres egen skyld og at det ikke er for vores skyld de går i skole. De skal de jo vide, det er jo virkelig fordi de skal komme videre i livet. Vi er her bare for at hjælpe dem. Det er deres ansvar, altså de skal tage ansvar for egen læring. Det bruger jeg meget tid på at de skal vide og når de bliver dygtige og kan mærke de bliver dygtige så siger; der kan du bare se. Så er vi meget videre også siger jeg hvad skal du så laver når du bliver stor. Så har de lige pludselig ideer og tanker; jeg kan sagtens længere end det man ikke tror mn kan. Men hele tiden pusher dem til, at du er skide god og hold da op, flot og high five med et eller andet de har lavet i eksamen. Så ja, støtter dem.

#### Kender du til Play pædagogik?

#### Hvad synes du om leg baserede læring?

Det synes jeg er en god ting. Der er ikke to ens og alle børn kan jo lide at lege engang imellem. Og jeg synes da at hvis man skal lære tabeller så kunne vi bruge alle vores trappetrin vi har her huset, så kunne man bruge det og gøre det mere spændende. Vi har, jeg kan ikke huske vi har alfabetet i skolegården – det var måske et andet sted jeg var, men der havde vi malet alfabetet ud på asfalten også kunne man springe rundet fra forskellige bogstaver og forskellige stavelse frem

til et eller andet ord eller noget så på den måde bliver det sådan til en leg eller bare lærer alfabetet fx eller et eller andet. Så jeg synes det er en glimrende ide- super god ide.

#### Og hvilke muligheder kan I se med dette?

At det bliver så alvorligt. At de også kan bruge deres krop og jeg tænker at når du bruger din krop til at huske med så kan du bedre huske nogle ting end at du bare kigger på nogle bøger eller nogle bogstaver. Så kan man putte det i - vi har jo forskellige måder at huske ting på. Der har man jo nogle husketeknikker som er super godt at bruger og som man mange gange har brug for at gøre det på den måd. Så jeg synes det er en glimrende ide.

#### **Observation at Kildeskolen**

Learning environment

There's a whiteboard

The tables are arranged in such a way that the pupils are sitting in groups of 4.

There's a rectangle table by the side where the pupil use modeling wax to spell words and be practical /active

There are 2 cupboards with learning materials (books, color pen, pencils etc)

There are posters with numerical chain, word and figures, maps of Europe and the globe.

There's a computer behind the class.

There are 2 celling fans

There's enough floor space for 2 more tables and enough space to move around.

#### Danish class - 25.feb.2019

Pupils and teacher interaction

The pupils come to the teacher's table whenever they need to get something explained.

They either come in groups or individuals to ask about anything they don't understand.

The teacher sat mostly at her place and the pupils came to her – but with time she went around asking the pupils and helping them.

The teacher takes her time to explain and elaborate everything the pupils ask.

a pupil read a story and the task was to explain the intention /essence of the story. (hvad er hensigten med historien). The student could paraphrase the story but he just couldn't understand the word "hensigt". After trying multiple ways to explain the teacher had to read the story herself again in order to explain it well to the pupil. She took her time for this 1 pupil to make sure that he understands it and could move on with his leaning.

Pupil – pupil interaction

The pupils sit in groups of 4 and one table with 5 pupils

It seems like the groups are doing the same exercise in their respective groups.

They communicate and seem to help each other with the exercise.

They move freely around and interact with each other in a normal friendly manner.

#### Practical aspect:

#### Observation:

Suddenly 2 pupils go out the class and i follow them to observe. They are out to practice a demonstration for the rest of the class later in the day. They are learning together. In this way they are adding the practical aspect of what they have read. They are learning the verbs so what they read is what they put into action.

They acted / demonstrated these sentences:

Stepping on something and falling

Standing on skies

Washing a car

Plucking flowers

Questions:

Why are you doing this:

It's a way of using the technics and doing something practical based on what we have read at the same time. And it's also a way to focus on something else than just words. We're also obliged to go through it since it's part of the exercise and curriculum.

Observation:

On 1 of the tables one of the pupils is reading out loud from an exercise book from the other pupil to know what to do. It seemed like they were doing the same thing.

Therefore, I asked the girl who read out loud:

Are you all doing the same thing? She answered: No. this boy is even doing English.

I asked the boy why he's doing English instead of Danish like everyone else? And he answered: I'm done with my checklist and therefore wanted to do something else. The other Danish exercise is too difficult so I can't do it now. And I'm also waiting to get access to table where I can do the practical aspect of it.

After the lunch break the 2 pupil who went out to practice "words to action" demonstrated the sentences in front of the class. The girl was rather shy to demonstrate in front of everyone in the class, so the boy started. They were both encouraged by the teacher to do more sentences.

The lesson ended and everyone had to leave the classroom, so I asked the teacher if it's a must to leave the classroom during break time and she answered "Yes". She continued by saying that "all pupils except from P9-p10 have go out for fresh air no matter how the weather is – unless it's a terrible weather. So it's compulsory in this school".

Math class after lunch – 25.feb.2019.

Pupils and teacher interaction

There's a good two-way communication between the teacher and the pupils.

The pupils are constantly at the teacher's desk.

At some point there were 3-4 pupil sitting permanently by the teacher's desk because they were having challenges. They just couldn't solve the task given them and some of them seemed demotivated.

The teacher also goes around helping the other pupils who are sitting by their tables.

Pupil – pupil interaction

It seems like everyone communicate well with each other. They know their tasks and they talk about it.

The pupils are on different level and therefore grouped themselves to be able to help each other.

There are a few pupil (2 boys) who makes lots of noise and it can be disturbing for the other kids.

During math class I observed 1 girl not sitting by any table but rather going around and asking if anyone needs help. She went to all the tables including those sitting by the teacher's desk and those standing by the "practical table". I approached her and sat with her when I saw that she's less busy. So, I asked:

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Are you in this class? She said "Yes"
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How come you're not sitting down/ doing your tasks as the others? She said; today, I've volunteered to be the "assistance teacher". It's just to help our teacher so that she can attend all who needs her help.

Is it because you're done with everything on your check sheet? She said; No, that's not the case. It's just that whenever we have math anyone can volunteer to be the assistance teacher. I've not it for a while so, I decided to do it today. Besides it's a way of giving the teacher an extra hand.

Are you helping because the other pupils find the exercise too difficult? She said; well, its not like that. Our exercises are like different courses labeled with colors and at the end of every course, we

must pass an exam. The purple color is the easiest (addition), the green is subtraction, blue is division /multiplication and the red are the most difficult of the all which has to do with measurements (liter, length etc.).

So, what is your favorite subject in school? She said; eeerh, I like Physical Education (PE).

I observed that many of the pupils had difficulties with the red courses. All of the pupils sitting by the teacher's table were all asking questions due to the red courses.

I observed that 2 girls were using tablets and had earphones on, so I asked what they're doing. They answered that that're listening to an audio book. She said that they listening to it because the teacher can't read out loud for all of them. So, they use the time to listen so that they do their exercise.

English class – 1. March 2019.

The pupils are sitting on their respective tables and they are grouped in 4. They are all doing different exercise on their checklist.

The pupils come to the teacher's table when they're done with a set of tasks and need it to be corrected. They'll either be asked to read out loud, translate what they've done in Danish to secure that they've understood everything. Every pupil is tested before they can move on to the next task.

I observed that there are some pupils who are not strong in English. A few of the pupils found it difficult to express themselves.

Ther's more noise in the class today than the other day. I can't figure out if it's because it's Friday today. Since the teacher is busy with the pupils by her desk some of the pupils use that opportunity to talk and play instead of doing their tasks.a

General remarks:

The pupils must ask for permission before they leave the classroom – even to visit the loo.

The pupils are self-driven and motivated to learn.

It seems like there's a "competition" in the way the way the learning is. It's a healthy competition though.

They work good in groups.

The teachers are patient and good to guide the kids to

### 9,3 Annex III

Coding the data into categories

Categories:	Content:
Facilities / environment	<ul> <li>The schools lack everything; no furniture, books, dirty floors, broken windows, no TLMs, no parental interests, not government support, no community support, we lack everything. How can we guarantee teaching? (p.3).</li> <li>An at time too the number, the number in a class the class size. Last year could believe, my class, they were 91 in one class – even if the teachers are five how can effective supervision takes place? (p.8).</li> <li>So that is why we struggled and put up that building over there. So as they were going to P2 we were able to spilt them into two so we have reduced that particular class. (p.8).</li> <li>And as you can see, not only the teaching learning, the infrastructure too is there. You witness how the children are struggling to sit in class. No chairs. How you sit in class can make you pay attention. But the children struggle and can not pay attention.(p.9).</li> <li>As for the Capitation Grants it is not enough, but it is not also bad. You can imagine when schools reopens for instance there was no chalk, and by then we had not received registers and lesson note books, so when you receive such monies, I have to buy chalk, lesson notebooks and some other necessary things. For example cardboard, colour chalk especially for the lower primary?(p.10).</li> <li>The first thin is infrastructure. If you to the lower block, it is an eye saw. It is just like a death trap. So if the infrastructure is put well in place, we have well infrastructure, so that the pupils will be in smaller groups in classes, supervision can be very effective (p.10).</li> </ul>
Interaction (communication)	-"Yes, for instance when one of us is absent the other takes care of the other's class". The pupils also have the same set of examination questions" (Alhassan 2018) (p.1)

	<ul> <li>"We have not done that for the last 8 years" (ibid). The class teachers are stationed in the same class, but sometimes we do rotate" (p.2).</li> <li>They ought to know which level and exactly which class, but unfortunately there is no cooperation between teachers and pupils regarding the learning needs of the children.(p.2).</li> <li>I have cordial relationship with the teachers. I go round the classes just to see what is happening. If the teachers have issues, they can easily approach me. (p.9).</li> </ul>
Learning space (classroom)	<ul> <li>-My first impression. The class is very crowded with many broken tables packed at the end of the class. The space used for the broken tables can increase space in the class to free mobility of the children.(p.1)</li> <li>The classroom is not learner friendly. "When the sun gets hot it become impossible to teach and lean in such structures" Alhassan 2018 (p.1)</li> <li>The teachers lack teaching and learning materials (TLMs). Even chalk is not given. The chalk we have is purchased through contributions from pupils and sometimes the teachers use their own resources to purchase chalk.(p.3).</li> <li>And when we talk of the learning environment we talk of the school and the.home too. Piagiat says that children are born with an innate capacity, but the behaviorist are of the view that tab (p.4).</li> <li>And currently if you go round the classroom, even the upper primary, you know the exercises are supposed to be in the class and saved in the capboards, but we don't have capboards so you give work/exercise to the child, the child gets zero. (p.8).</li> </ul>
Motivation	<ul> <li>So just talking doesn't help. So the method that they are using brings about <i>boredom</i>. Because when the teacher is doing the talking alone the pupils will either be sleeping or doing something else. That one is a fact. *p.4(.</li> <li>The children are naturally good, but lazy (p.6).</li> <li>I use appellation "clap hands, well done etc" (p.6).</li> <li>Page 6+7 "interaction with the children".</li> <li>"To turn the fire in the pupils, the teacher requires the support of the parents".</li> <li>Some of the children work to support their parents' income and they come to school tired and have no energy and motivation to learn. (p.7).</li> <li>And as you can see, not only the teaching learning, the infrastructure too is there. You witness how the children are struggling to sit in class. No chairs. How you sit in class can make you pay attention. But the children struggle and can not pay attention.(p.9)</li> </ul>

Participation /involving the pupils	<ul> <li>It is also a problem when English is used as the medium of instruction. That makes the child centered approach and interactive teaching hard. The pupils become active when the L1 is the teaching language. (p.4).</li> <li>We take them out sometimes. For instance when teaching about the soil, we can take them out to show the difference in soils. (p.3).</li> <li>At the level students (pupils) need things that they can play with – they need hands on activities and guided instructions, but all that they do is feed them with information, they will come stand talk, talk and go. (p.4).</li> <li>It is difficult to engage parents. If you invite parents to the school they will not come. We have given up engaging parents. So no, we don't engage the parents. (p.5).</li> <li>I told them "we learn by practice" practical, especially children involved in activities make them comprehend the more. I told them, I have never seen any teacher bring the children out to observe. Some of them assured me that they do just that I don't see. (p.10).</li> </ul>
Play (as a method to learn)	
Teaching strategy /didactics / methods etc.	<ul> <li>I indicated that the method of teaching and the home might have influence. He agrees that the home is the main reason for learning challenges. (p.1)</li> <li>"As a class teacher, you are forced to teach subjects you are not trained to teach". (p.1).</li> <li>Do you have students with learning difficulties? "Oh yes many of them". We work with Discovery Learning Alliance<sup>[1]</sup> regarding how to support Pupils with learning difficulties. They have provided a Learning Resource Center for the school. There is a television and CDs with learning content in especially numerals and literacy to enhance audiovisual teaching. The capacity of the teachers is built to address these learning challenges. The pupils with learning difficulties are given extra teaching after school. They get extra one hour four days a week. (p.1&amp;2).</li> <li>We use the child centered approach and the lecture method. The lack of TLMs make thee pupil centered approach very difficult and thereby mostly use the lecture method.(p.3).</li> <li>We take them out sometimes. For instance when teaching about the soil, we can take them out to show the difference in soils. (p.3).</li> <li>/ For the teaching method it is very pathetic, in it vert pathetic I must be frank with you. Since I stepped in here, even though I have not been to all the classes, but the teaching methods the teaching are using wouldn't help at all. (p.3-4).</li> <li>We have the teacher centered and the learner centered. All that they have been doing is the teacher centered they feed them (pupils) with information. (p.4).</li> <li>So just talking doesn't help. So the method that they are using brings about boredom. Because when the teacher is doing the talking alone</li> </ul>

r	Thomas Sum Thisun & Sum Infuturia
	the pupils will either be sleeping or doing something else. That one is a fact. *p.4(. - We have a standard lesson plan frame that all teachers use. The lesson plan is guided by the GES text books and defined syllabus. The Aki Ola series have been recommended for use. (p.4-5). - I use the child centered approach to teach, but language barrier is a is problem? Because we use English as the medium of teaching and many of the children can not really use the language actively. (p.5) - As I was talking, we don't have a single computer, so in terms of ICT, the teachers are teaching abstract and you know you have to teach practical especially at this basic level, involvingerh child centered approach is the best way to always involve the child. (p.9). - Yes, exactly because I have been telling them and I have never seen teacher bring the children to just observe the environment. Sometimes you can even bring the children outside, give them the chance to observe what is happening in the environment. (p.9). -
Challenges:	<ul> <li>"In fact only 4 of the pupils can read as they are required". "I will say that 90% of them can not read and write as expected of them at this level of their education". (Sadia 2018) (p.2).</li> <li>"That is a big question especially when the school has enough human resource capacity. All permanent teachers in the school are professional teachers" (p.2).</li> <li>"I think the home is the major challenge". Pupils come back to school with homework they are supposed to do at home. Parents don't support the learning of their children. They don't seem to care about that. Sometimes we invite them for PTA and they don't come.(p.2).</li> <li>The lack of text books is also a big challenge. We have not received text books from the Ghana Education Service (GES) for the past 5 years. (p.3).</li> <li>The schools lack everything; no furniture, books, dirty floors, broken windows, no TLMs, no parental interests, not government support, no community support, we lack everything. How can we guarantee teaching? (p.3).</li> <li>Alhassan talks about dyslexia and dysgraphia as the reason for the inability to learn. Further discussions reveal more as shown in the text here. (p.3).</li> <li>They say it is because of inadequacy of teaching and learning materials, even though we are taught that the teacher is supposed to improvise TLM.(p4).</li> </ul>

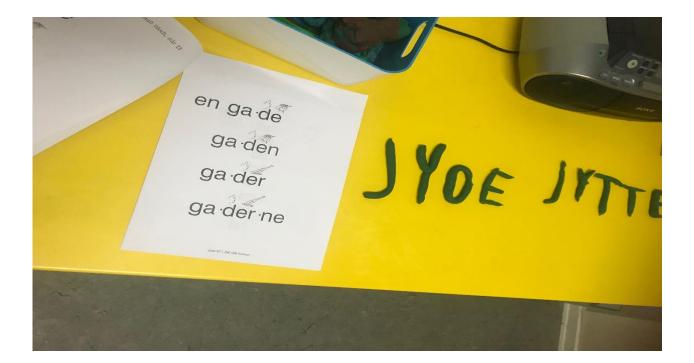
<ul> <li>Today the topic for today was creative arts – it was theoretical visual arts as seen in picture I asked if they have practical visual arts and got only one student with fairly good drawings. (p.4).</li> <li>The class size is a big problem.</li> <li>There is also the policy of mass promotion – send the pupils further regardless of how bad they perform, except if parents agree to repeating the pupil.(p.5).</li> <li>No, because the failure occurs at the foundation stages – the lower primary. This is where they should have learnt to read slowly. "The best place to learn is the nursery and lower primary". It is sad to say that, at P4 we still teach two and three letter words. This should have been done at the foundation stages. The irony is that unqualified teachers are put at lower primary level or foundation level. (p.5).</li> <li>The best qualified teachers with years of experience ought to teach at the foundation classes to build strong basis for further learning.(p.5).</li> <li>As I said earlier, it is not me to take the blame. The foundation teachers failed the pupils. (p.5).</li> <li>During exams - "The teacher must read the questions for the pupils because they cannot read". (p.7).</li> <li>But you realise that on the part of the government, I can't remember the last time we have received text books. All the textbooks we have been using outmoded. You get the point? (p.8)</li> <li>So for this school, that has been our challenge, the parents. The parents are not helping (p.8).</li> <li>And at time too the number, the number in a class the class size. Last year could believe, my class, they were 91 in one class – even if the teachers are five how can effective supervision takes place? (p.8).</li> </ul>
beat the child. But teacher don't really follow that advice. "I will also say that caning is the language the children understand" (p.5).

### 9.4 Annex IV

Pictures from the Kildeskolen empirical site – "Practical table".

"The 21st Century Learning Environment – disparities, challenges and prospects" MA in Learning and Innovative Change - Aalborg University, Copenhagen Thomas Sam-Ansah & Sani Mahama







### 9.5 Annex V

### **Overview of Project Outlook**

