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Patterns of Children's Work during Schooling and its Association with School Attendance in Coffee and Non-Coffee Picking Seasons in Intense Coffee Growing Regions in Sidama Zone, Southern Ethiopia: A Mixed-methods Study


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# Patterns of Children's Work during Schooling and its Association with School Attendance in Coffee and Non-Coffee Picking Seasons in Intense Coffee Growing Regions of Sidama Zone, Southern Ethiopia: A Mixed-methods 


#### Abstract

This study examined patterns of children's work combined with schooling and its association with school attendance in coffee and non-coffee picking seasons among primary school students (grade5 to 8) in Sidama Coffee Livelihood Zones. Mixed methods were employed with a concurrent triangulation design. A total of 240 school children, and three students and three teachers were selected using multi-stage random and purposeful sampling respectively. Questionnaire and interviews were used to collect data. Descriptive statistics, non-parametric and parametric tests involving chi-square, $t$-test and bivariate correlation as well as verbatim, quoted texts of the interviewees and thematic analysis were used to analyze quantitative and qualitative data respectively. Findings show that combining work with school is a common practice among students. The study found statistically significant difference between coffee and non-coffee picking seasons in the regularity of children's work ( $M=2.92, S D=1.07, t(218)=$ 18.68, $p<.001$ ), intensity of children's work ( $M=2.92, S D=1.07, t(220)=23.3, p<.001$ and in school attendance rates $(M=3.17, S D=1.01, t(217)=-13.82, p<.001)$. Moderately statistical significant correlations were obtained between school attendance and (a) average days worked per week ( $r=.531, p<.001$ ) and (b) average hours worked per day in the past 10 school months ( $r=.394, p<.001$ ). Qualitatively, findings revealed coffee picking season is the greatest time waster for the students. The negative impacts of children's work on school attendance patterns were described by the students and teachers in relation to coffee picking season. The results of this thesis can provide foundations for introducing flexible school calendar in Sidama Zone coffee growing areas, and it can open up avenues of further research in other coffee growing areas to make nation-wide policy decisions


Key words: Child education, coffee growing areas, child labor, school attendance, Sidama, Ethiopia

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## List of acronyms

| ABE | Alternative Basic Education |
| :--- | :--- |
| CSA | Central Statistical Authority |
| EBNLA | Ethiopian Baseline National Learning Assessment |
| EDHS | Ethiopian Demographic and Health Surveys |
| ERGA | Ethiopia Early Grade Reading Assessment |
| ESNLA | Ethiopian Second National Learning Assessment |
| ETNLA | Ethiopian Third National Learning Assessment |
| ILO | International Labour Organization |
| IPEC | International Program on the Elimination of Child labor |
| MOE | Ministry of Ethiopian Education Programme on Child Labour |
| SIMPOC | International Labour Organization's Statistical Information and Monitoring |
| SNNPR | Southern Nation Nationalities and People Regional state |
| UNCRC | UN Convention on the Rights of the Child |
| UNESCO | The United Nations Educational, Scientific and Cultural Organization |
| USAID | United State of Agency for International Development |

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## Chapter One: Introduction

This chapter provides introduction to the research problem. It presents the necessary background information along with statements of the research problem, the major and the specific objectives, and the main research questions that guided the study. The chapter also provides the significance of the study. In addition, the chapter has operationally defined some of the key variables investigated in the study. The last section of the chapter gives general information about how the thesis is structured and organized.

### 1.1 Background of the study

Ethiopia has made significant progress in increasing enrolment and school completion over the past decades (MOE, 2011). For instance, Gross primary school enrolment rate increased from 91.7 per cent in 2006 to 96.4 per cent in 2011 over the last five years. Similarly, the net primary school enrolment rate has increased from 82.6 \% to $87 \%$ between 2006 and 2011. Overall enrolment of children in all stages of education in Ethiopia has improved over the years. Such increase in school participation has been also associated with rapid implementation of the Alternative Basic Education (ABE) programme. ABE has made an average contribution to the enrolment of primary education of 755,607 for the past five years and contributes additional 4-5 percent coverage to the gross enrolment rate for primary education (MOE, 2011).

Despite the remarkable achievements in access, progress to date in raising the quality of education in Ethiopia has been limited. Efficiency and quality input indicators, achievement tests, and classroom observations suggest that it has been difficult to maintain the quality of education during a period of very rapid enrollment expansion. Current efficiency indicators suggest issues of poor quality, including a continued high dropout rate of 28 percent in grade 1 , an average national primary education repetition rate of almost 8.5 percent, a survival rate of less than 40 percent to grade 5 , and a mere 49 percent primary education completion rate (MOE 2011).

The deteriorating quality of Ethiopian primary education system also manifests itself in low levels of student achievements. In Ethiopia, the Ethiopian Baseline National Learning Assessment (EBNLA), the Second National Learning Assessment (ESNLA), and the Third

National Learning Assessment (ETNLA) were carried out in 2000, 2004, and 2007 respectively (National Organization for Examinations , 2008). The findings also revealed that the mean score for each subject and consecutively their composite score were well below the minimum expected score where the minimum passing mark set by the Education and Training Policy is $50 \%$ (TGE, 1994).Comparing the three National Learning Assessments indicate that Grade 4 mean composite score (Mathematics, English, and Environmental Science) of ETNLA (39.8\%) was lower than ESNLA (43.4\%) and EBNLA (42.6\%). Similarly, Grade 8 mean composite score (Biology, English, Mathematics, Chemistry, and Physics) of ETNLA (35.6\%) was found lower than ESNLA (39.7\%) and EBNLA (41.1\%) respectively (National Organization for Examinations, 2008).

The most worrisome evidence about the declining quality of education at the primary level comes from the findings of the Ethiopia Early Grade Reading Assessment (ERGA) carried out in eight regions in 2010. The EGRA study was assessed against the Minimum Learning Competencies in mother tongue and EGRA is in line with the Ethiopian curriculum. The findings show that students are not learning at the level expected at either Grade 2 or Grade 3. Although children attend school for two or three years, a significant percentage is illiterate. The findings supplement the work of the Ethiopian Training Quality Assurance Agency in the National Learning Assessment studies of 2000, 2004, and 2007. Reading achievement is low in all regions sampled, with the urban regions, Harari and Addis Ababa, modestly outperforming the others (USAID, 2010).

Out of the eight regions involved in (EGRA) study in Ethiopia, Sidam Zone has been identified as the lowest performing region (USAID, 2010). Nearly, 69.2 percent of children in Sidama could not read one word at the end of Grade 2. Fifty-four percent of children were unable to read anything, even at the end of Grade 3. In each of the 8 regions, more than $90 \%$ of children and in the case of Sidama, $100 \%$ were not reading at the expected oral reading fluency rate. About $87.5 \%$ of Grade 3 children read less than 30 words per minutes (wpm).Sidama students lag behind their peers in other regions on Reading comprehension as well, with $72.8 \%$ of Sidama children enrolled in Grade 2 unable to understand a story at all (USAID,2010). How could the majority of students fail to read after more than three years of full-time schooling?

Part of the answer to this question may be found in the quantity and quality of instructional time lost or wasted in schools. A study conducted by DeStefano, Schuh Moore and Adelman (2010) in four areas of the Oromo Region in Ethiopia ( Woliso, Dendi, Goro, and Bacho) concluded that the overall low performance of students in reading was, in part, attributable to the amount of potential instructional time not used in these schools. School being closed and teacher and student absence combined to reduce the amount of time available for instruction by as much as 43 percent in government schools and 29 percent in community schools. Overall, the equivalent of 43 out of the 203 days in the school year was lost in community schools and 60 days in government schools. Case studies in developing countries in Latin America, Africa, and Asia reveal large amounts of time loss, resulting in many illiterate children in the third grade. In fact, the studies revealed a strong correlation between the average amount of engaged instructional time, or "time on task," and the average reading fluency of students (DeStefano, Schuh Moore and Adelman, 2010). Time, when used effectively, does matter.

For many children in coffee growing areas the biggest time waster is estimated to be the picking and plantation seasons of coffee production. A report by Nchahaga George S (2002) in Tanzania revealed that significant proportions of children in coffee growing areas were engaged in child labor during the picking season, which usually runs from November to Februarys. Sidama is one of the major coffee producing regions in Ethiopia. It supplies over $40 \%$ of washed coffee to the central market. Sidama is one of the major coffee producing regions in Ethiopia. It supplies over $40 \%$ of washed coffee to the central market. In many parts of rural Ethiopia, school attendance is impractical during peak agricultural labor season partly due to high seasonal child labor demand, and partly due to schools' inflexible schedules. The problem is more prevalent in schools serving intense coffee growing agricultural communities. Students in rural primary schools in coffee producing regions face particular disadvantages, some of which stem from time constraints associated with agricultural seasonality.

Given that the majority of school children are more likely to face pressures to be involved in work activities and simultaneously need to cope with greater scholastic demand, it is important to understand the detrimental forms of work activities undertaken by school children which are inconsistent with regular school attendance. There is at present no direct evidence which shows
the magnitude of the child work pressure and its association with school absence in coffee producing areas in Ethiopia, including Sidama Zone. That was the aim of this research.

### 1.2 Statement of the problem

There is a commonly held belief that children residing in intense coffee growing regions like Sidama experience more work pressure and attend schools less during the coffee picking season of the year than they do outside the picking season of the school year. The thought is that the structured nature of the coffee farm season leads to more structure in primary school-going children's work and school attendance patterns. However, it is difficult to find empirical studies supporting this belief. This study was conducted to determine the patterns of children's work combined with schooling and its association with school attendance in coffee and non-coffee picking seasons when the schools are in session.

### 1.3. Objectives of the Study

The study has attempted to achieve the following general and specific objectives

### 1.3.1. General objectives of the study:

The main objective of this study was to determine the patterns of children's work combined with schooling and its association with school attendance in coffee and non-coffee picking seasons among students enrolled in primary schools serving intense coffee growing agricultural communities in Sidama Zone, Southern Ethiopia

### 1.3.2. Specific objectives of the study

The specific objectives of this study were the following:

- To assess patterns of children's work combined with schooling and school attendance in coffee and non-coffee picking school days and terms
- Determine the relationships between patterns of children's work combined with schooling and school attendance in coffee and non-coffee picking school days and terms
- To uncover the work and the school attendance experiences of children during coffee and non-coffee picking school seasons
- To examine school teachers' perspectives on the extent of children's work schooling and school attendance in coffee and non-coffee picking school days and terms


### 1.4. Research questions

The study was guided by the following four research questions.

1. To what extent do children combine work with school and attend school during coffee and non-coffee picking school days?
2. What is the relationship between the extent of children's work and their school attendance patterns during coffee and non-coffee work and school seasons?
3. What is the work and the school attendance experiences of children during coffee and non-coffee picking work and school seasons?
4. How do school teachers and principals perceive their children's work burden and school attendance patterns during coffee and non-coffee school terms?

### 1.5. Significance of the study

Information on the type of work a student has done and his or her level of engagement in different forms of work activities has a great importance to address the problem of high dropout and repetition rates among children who combine work with schooling. More over understanding the relationship between a child's level of engagement in different forms of work activities and school attendance is highly policy relevant when considering how to reduce the adverse effect of child labor and child work on a child's physical, emotional, and psychological development in non-education sector.

To that end, this study has examined the current working status of school children in different forms work activities and how students' level of engagement in different forms of work activities carried out during different coffee growing and school seasons is related to their school attendance experienced in Sidama Zone. Accordingly, the results of this study can benefit educators, parents and decision makers working in both the education and non-education sector policies to tackle the educational problems of working students who are from coffee growing agricultural community.

Finally, this thesis hopes to make small contribution to increased and better use of mixed methods research by providing an example of how quantitative and qualitative approaches can be integrated to investigate an educational research problem. "An absence of exemplars has been identified as among a number of factors that currently impede integration in studies carried out by researchers using the approach" (Woolley, 2009, pp 7). In this regard, this thesis also hopes to stimulate interest among student researchers and to provide a good example of how quantitative and qualitative approaches can be integrated in a concurrent mixed methods research design.

### 1.6. Operational Definition of Terms

The study has operationally defined the following key terms to quantitatively measure and qualitatively describe the extent of children's work and school attendance patterns in coffee picking and non-coffee picking school days.

## Farm work

Farm work was defined as unpaid agricultural work activity undertaken in the family farm or business. This definition included four type activities: (a) picking and processing coffee, (b) harvesting and processing non-coffee crops, (c) non-harvest farm work, and (d) animal care and tending

## Off-farm work

Off-farm work is defined as agricultural and non-agricultural work activities undertaken inside or outside of the child's home for the purpose of generating income. This include paid work such as (a) small scale coffee trading or business (b) paid work in coffee picking and processing,(c),trading non-coffee produce and selling animals,(d) producing and selling (e) artistic or craft work (f) semi-skilled technical work (g) casual work (h) street vending and (i) non-coffee wage work

## Domestic work

Domestic work means unpaid household work including chores such as house cleaning washing clothes, cooking, fetching water, collecting firewood, caring for siblings / childcare or the sick or elderly people in own home, shopping, going to mill and other types of unpaid household services

## Regularity (frequency) of children's work

Regularity or frequency of children's work was defined as the average number of days worked per week in different forms of work that are undertaken by a student when school is in session.

## Intensity of children's work

The intensity of children's work was measured as the average number of hours a child has worked per day in all types of work activities (domestic, farm and off-farm) that are combined with schooling

## Coffee picking school days/season

Coffee picking school days/season in the current study refers to the first four school months (from September to December) that coincide with coffee harvest work season in study area which falls during semester one according to the school calendar

## Non-coffee picking school days / season

Non-coffee picking school days / season is defined as the last four school months (from February to June) that coincide with non-coffee harvest agricultural work season in study area

## School attendance

In the current study, school attendance was defined as self-reported number of days a student was absent or present in the school during official school instructional hours and days. High selfreported absence meant low school attendance and vice versa.

### 1.7. Structure of the Thesis

This thesis is divided into six chapters. Chapter one provides introduction to the research problem. It presents the necessary background information along with statements of the research problem, the major and the specific objectives, and the main research questions that guided the study. The chapter also provides the significance of the study. In addition, the chapter has operationally defined some of the key variables investigated in the study

Chapter two presents four major theoretical strands of literature that guided this study; namely, human capital theory, the Zero-sum theory, socio-cultural theory, and child-centered
perspectives. It also explores the existing Ethiopian literature relating to the effects of children's engagement in different forms of work on school attendance and school performances. In addition, literature dealing with the current demand for child work in coffee plantation and the consequence of this on school attendance and school performances of children who are from intense coffee growing agricultural communities are reviewed.

The third chapter of this thesis mainly explains how the research was conducted in order to answer the research questions, and archive its aims and objectives. Research methodology are discussed and presented in detail. Topics covered in this chapter are many including, (a) the description of the study area, (b) research design, (c) sampling, (d) instruments of data collection, (e) validity and reliability, (f) data analysis, (g) procedures of data collection and (h) ethical consideration.

In the fourth chapter, the results from the three sets of data collections instruments are presented in two major sections. In the first section of this chapter quantitative findings are presented while the second sections of the chapter present findings obtained from qualitative part of the study. In the quantitative results section, distribution of the study participants across selected demographic characteristics is presented. This is followed by the presentation of results on patterns of children's work and school attendance in coffee and non-coffee picking school days, as well as quantitative evidences of the relationships between patterns of children's work and school attendance respectively. In the quantitative results section, results of the semi-structured interviews conducted with students about children's own experiences of work and school attendance during coffee and non-coffee picking school days and school teachers are presented. The second part of the quantitative results section presents findings about school teachers and principals' perspectives on children's work burden and school attendance patterns during coffee and non-coffee picking school terms.

The discussions of the findings as well as the conclusions and implications drawn from the findings have been presented in chapters five and chapter six respectively. In chapter five, findings obtained from both the quantitative and the qualitative data are integrated and are related to prior research findings and theories dealing with child work and its association with school attendance and school performance indicators. There are three major issues discussed in the three different sections of the chapter: (a) extent of children's work combined with school
learning in coffee livelihood Zones in Sidama, (b) children's work and school attendance patterns in coffee and non-coffee school days, and (c) relationships between children's work and school attendance patterns. In the final chapter, the conclusions of this research have been demonstrated based on the analysis and discussions of the results made in the preceding two chapters. Moreover, it outlines the recommendations drawn from the conclusions of the study

## Chapter Two: Theoretical Framework and Literature Review

### 2.1. Introduction

Analyses of school children's participation in work activities and its association with school attendance and performances have generated considerable debate in educational literature. This chapter presents the theoretical frameworks that guided this thesis and reviews Ethiopian literature related to children's work and school attendance. The chapter is organized into two sections. In the first section four major theoretical strands of literature; namely, human capital theory, the Zero-sum theory, socio-cultural theory, and child-centered perspectives are discussed. The second section is devoted to reviewing existing Ethiopian literature relating to the effects of children's engagement in different forms of work on school attendance and school performances. In addition, literature dealing with the current demand for child work in coffee plantation and the consequence of this on school attendance and school performances of children who are from intense coffee growing agricultural communities are reviewed.

### 2.2. Theoretical Framework

This study employs a combination of four major theoretical strands of literature to understand the relationship between children's working patterns and patterns of their school attendance, namely; human capital theory, the Zero-sum theory, socio-cultural and child-centered perspectives.

### 2.2.1. Human capital theory

The human capital theory is one of the most popular and important theories that can be used to explain the link between child work and various measures of school performance indicators. Human capital is a broad and multifaceted concept encompassing many different types of investment in people including health, nutrition and education which enhance individual's ability to become productive. In the field of education, however, human capital is defined, fairly tightly. For instance, Rastogi (2002) defines human capital as knowledge, competency, attitude and behavior embedded in an individual. School enrollment, school attendance, duration of schooling and levels of qualification are the standard measures of human capital acquisition. Much of the recent literature has used test scores as a measure of human capital in studying how the learning achievement of working students is impacted by child labour hours (Ray and Lancaster, 2003)

Human capital theory emphasizes that investing in education results in increased learning which, in turn, result in increased productivity of an individual in the future. The underlying assumption is that individuals primarily invest in human capital through schooling, by paying and/or forgoing something in the present, in anticipation of future gains or returns in forms of increased productivity and financial returns (Masuhama, 2006). Schooling of children benefits households in terms of future earnings at the cost of present investment on it. Cost of schooling refers to both direct costs as well as indirect costs (Hadley, 2010). Direct school costs include school fees, learning materials, and transportation and school uniforms and money invested in schooling Indirect cost are opportunity costs of enrolling children that include child labor that may be forgone if children are enrolled to school. Both of these costs affect householdse schooling decision to enroll or delay students to school (Hadley, 2010). Both of these costs affect households" schooling decision to enroll or delay students to school or to send children to work.

Within the human capital framework, review of the literature reveals two different perspectives on the effect of child work on various measures of schooling outcomes. One perspective is that child work is in most cases harmful in terms of children's education, health, and physical, emotional and economic development. This perspective within the human capital theory stipulates that an increase in child labor frequently causes a decline in the acquisition of human capital. If a child is employed all through the day, it is likely that the child will remain uneducated and have low productivity as an adult. Previous studies of the educational consequences of children's work (e.g., Patrinos and Psacharopoulos ,1995; Akabayashi and Psacharopoulos ,1999; Singh ,1998; Heady ,2000 and Rosati and Rossi ,2001) have reported that child labour is harmful to human capital accumulation. The lower achievements by working children are a problem because it blocks accumulation of human capital (Rosati \& Rossi, 2001).

Consequently, the recognition that child labour directly conflicts with the human capital accumulation of the child prompted international organizations and national governments to intervene through a variety of policy initiatives. Anker (2000) and Myers (2001) have outlined some of these policies that have been designed following this framework to make education more accessible and more attractive to all children including subsidization of school expenses, school lunch programs, school-study arrangement, creation of flexible curriculum and school calendar, provision of income-generating opportunities for parents, enhancement of quality
education and quality schooling through teacher training and improvement of learning materials, and so forth (Anker, 2000; Myers, 2001).

Another view held among educators within the human capital framework states that child work is a valuable aspect of children's lives because it aids their education and overall development (Phoumin and Fukui, 2006). There is the positive side that the working child provides funds that go directly towards his or her schooling costs. Waged work can also be positive in that earnings go into the family budget to enable a sibling to access education according to a family's prioritizing of resources, although this is not necessarily positive for the individual concerned and may well have a built in gender bias. The negative side to the working child and access to education may be that the work done is of such a heavy load or at times that clash with the school timetable that they may not be able to take full advantage of the schooling offered, by being frequently absent, missing parts of the day or being too tired to participate fully in classes and other work (Phoumin and Fukui, 2006).

The contrasting view, while acknowledging possible detrimental effects of work on children, suggests that the beneficial effects for households living in poverty and for the children themselves are much greater and therefore contends that combining work with schooling is not only possible, but can be useful and in some cases is necessary (Bourdillon et al. 2011; Spittler and Bourdillon 2012). This perspective has no objection to children's work unless it prevents children from receiving education. Light work and other work arrangements that transmit income generating skills, for example, are also considered education for children (Myers, 2001). In reality, however, most child labor takes place in either agriculture or domestic chores where such accumulated skills can hardly be obtained. Therefore, most literature implies that such human capital accumulation for the younger children can only take place at school but not in the workforce (Rosati \& Rossi, 2001; Post \& Pong, 2000; Sedlacek et al., 2005).

For instance, feminist economists have argued that although strong negative correlation between children's market work responsibilities and educational achievement or attainment has been established (e.g., Christopher Heady 2000; Post and Pong 2000), less attention has been paid to the effect of girls' domestic work on their schooling. They maintain that the definition of 'work' employed by mainstream economists is gender biased as it largely ignores the role of domestic and care work. Girls' work primarily takes the form of domestic tasks, which are not considered
in many studies of child labor. Assaad, Levison, and Zibani (2007) investigated the effect of girls' work on their school attendance and have concluded that the substantial burden of girls' domestic work leads to lower rates of school attendance. From the perspectives of feminist economists it is argued that policies that attempt to ban labor force work of children will have practically no effect on girls' education, while interventions reducing the drudgery of household labor through, for example, improved water and sanitation infrastructure, have better prospects for success (Assaad, Levison, and Zibani ,2007)

Evidence of both the negative and positive influence of the children's performance on schooling outcomes can be attributed to the difficulty of defining child work in different studies that use human capital theory. For instance, Assaad, Levison and Zibani(2007) have argued that an assessment of whether or not work affects educational attainment is sensitive to how one measures the intensity of children's work. Since there is a great deal of controversy over what constitutes work for children and which definition of work should be used to describe children's activities, this study uses broader definitions to avoid significant gender bias in the way work is defined. Accordingly, the study considers domestic work performed by female children at home as work. Chores that are considered work in this definition include cooking, errands, house cleaning, collecting water, laundry, and child care and other work undertaken for household consumption and use.(Assaad, Levison and Zibani,2007).

In an agrarian developing country context, Kes Aslihan and Swaminathan Hema(2006) outlined two main approaches used to define and measure work. The first approach, which is based on the System of National Accounts (SNA), defines work in terms of formal and informal market work and non-market subsistence work for production of goods. This approach excludes non-market work producing services for own-consumption within the household. Hence the definition of work is limited to economic activity or market work, undertaken for the purpose of market exchange. The second approach, according to Kes and Hema(2006) , defines work and activity in a wider sense, and attempts to capture work activities and labor allocations that are not otherwise included in national accounts or economic analysis. Time use surveys are the principal instrument for capturing this wider approach. The main activities that are included in the nonmarket, or household, economy are subsistence production, reproductive work, and volunteer work. As used here, subsistence production concerns production of goods for home use that in
principle could be marketed such as food, clothing, soft furnishings, etc (Kes and Hema,2006). This study also considers both market and non-market work as work to determine children's working patterns. Hence, children's work can be broadly classified as market work and non-market work.

### 2.2.2. Zero-sum theory

Another influential theoretical model in research on the relationship between child work and school performance indicators is the Zero-Sum Model. The zero-sum model argues that time has a finite horizon and any additional time spent on employment during education must lead to a reduction in time spent on educational advancement. There are only so many hours in the day. Each hour spent at work, in social engagements, or in other extracurricular activities is an hour not spent studying or doing homework. In other words, time tends to be a "zero-sum game," with time devoted to any one activity increasing only if another activity suffers an equal loss (Warren John R., LePore Paul C.,\& Mare Robert D(2000).

Children and young people who are living in poverty balance multiple expectations and responsibilities, which are related to school, work, and family life. Rodgers and Standing (1981) as cited in Vogler , Morrow \& Woodhead (2009) have produced an important cross-cultural typology of children's activities using the following categories: domestic work (cleaning, cooking, childcare and other domestic chores); non-domestic, non-monetary work (work that takes place within the family); tied or bonded labour; wage labour; marginal economic activities (selling newspapers, shoe-shining, running errands); schooling; idleness and unemployment; recreation and leisure; and reproductive activities (personal care, eating and sleeping).

According to the zero-sum theory of time use, the varying amounts of time devoted to school, social, or work participation are posited to be in competition with each other. Specifically, the zero-sum model assumes that the time and energy that students utilize for their employment will be directly subtracted from the time and energy which otherwise are available for either school related activities, or time with their family and friends (Carr, Rhoda, James Wright, and Charles Brody, 1996). The zero-sum theory proposes that participation in work takes up a large amount of the children's time, which negatively affects on their academic performances (Warren John R., LePore Paul C.,\& Mare Robert D,2000). Students have a finite amount of time available to them for activities. The more time that is spent on work, the less time there is available for
attending school and class, which adversely affects their academic achievement (Warren John R., LePore Paul C., \& Mare Robert D,2000).

Sakurai (2006), however, contends that the zero-sum model suffers from two major limitations; zero-sum presupposes mutual exclusiveness between work and school. In other words, the model hypothesizes that time and energy that is not spent on employment is spent on school-related work. Second, zero-sum ignores the interrelated aspect that employment would affect school work but at the same time, employment activities might be also affected by students' school performance (Sakurai, 2006). Nevertheless, the theory has been used to explain the relationship between work and school particularly among school children. Since the present study is limited to school children, the zero sum theory might provide some insight regarding children's work pattern and its association with school attendance.

### 2.2.3. The socio-cultural perspective

In contrast to both the human capital and the zero-sum theory, research within the socio-cultural perspective call for a more contextualized understanding of children's work and schooling patterns. It argues that any conceptualisation of children's rights to education, freedom from economic exploitation and leisure in developing countries should incorporate an awareness of context-specific ways of understanding child work, and diverse livelihood strategies adopted to ensure family survival. Work activities that children in some contexts (especially in the Global North) would not undertake, are not only common but also acceptable and even encouraged in others. In some developing countries participation in work activities is viewed as contributing to children's self-confidence and development, and therefore complementary to formal education (Bourdillon, 2006).

One important argument with respect to the socio-cultural perspectives is that children have the right to benefits arising from paid or unpaid work appropriate to their age, and poor children are often harmed rather than protected by being prevented from working (Ennew et al. 2005). They benefit from working to earn the resources required to spend on food and clothing (Bass 2004) and, instead of being an obstacle to education; the money they earn is vital to pay for school fees and uniforms (Bourdillon 2006). Also, work and schooling are not necessarily irreconcilable, as many boys and girls in the global South manage to combine them, even when formal education may not be in their best interests (Adem, 2009). Moreover, working children find friends, skills
and lessons on how to look after themselves that school curricula do not teach (Bourdillon, 2006). The knowledge they acquire from school may also be less relevant compared to knowledge they receive from participation in work activities (Invernizzi, 2003 and Abebe, 2008).

Furthermore, a study conducted in southern Ethiopia by Abebe (2008) shows that the school calendar is not compatible with children's agricultural work-cycle, especially with respect to activities related to coffee production. Thus compulsory education, which brings children to schools alone, is not enough. What is needed is proper educational policies based on children's needs and realities (Admassie 2003), their protection from exploitation and from being harmed by working as well as the provision of better employment opportunities, and adequate welfare for families who cannot support their children (Ennew 1995).

Cross-cultural research documented that children feel pride and a sense of self-reliance, worth and self-respect because of their ability to supplement the family income (Woodhead, 1998). Likewise, many parents believe that hard work makes children more resilient as adults. Children's work is also defended on grounds that it provides apprenticeships and transmits skills, as well as producing socialization into adult roles (Abebe 2007), and that culturally bounded notions of responsibility are linked to how children perceive the opportunities and constraints facing them and in making decisions about their work and future life chances (Punch 2002).

### 2.2.4. Child-centered perspective

The child-centred perspective sees children's work from their own perspective and often shows that although they are socialized to accept work as a normal part of childhood, they may exert some agency and power over what they do (Woodhead, 1988). For example, they mediate the demands placed by the household on their labour and may keep some income for themselves (Porter, 1996). Within this framework, children are considered not just passive recipients or victims of exploitation. They are the ones who know what needs to be done for them and are capable of having opinions (Miljeteig, 2001).

Moreover, advocates of this perspective believe that children should be listened to and their opinions should be taken into serious consideration in order to make effective social policies related to child labor. Without knowing children's views, their perceptions, and their real experiences, any policy interventions seem to become divorced from practical reality that
children and their families face. Hence, many child labor policies end up being insensitive universal approaches that have been created based on the global definition of childhood and their work (Kabeer, Nambissan, \& Subrahmanian, 2003).

Similar to the three theoretical perspectives discussed so far, work that damages children's well being and hinders individual and social development is also considered child labor within the child-centered perspective (Myers, 2001). However, this approach is the one in which locality is considered instead of globalist approaches to dealing with child labor problems. Local cultures, traditions, and practices play important roles to identify child labor. As Kabeer, Nambissan, \& Subrahmanian (2003) have stated, meanings and definitions of childhood, children, and child work are constructed with cultural, economic, and social influences. There is no uniformity in definitions or meanings across the communities, countries, and regions

Accordingly, childhood, children and child work mean different things in different places. As Woodhead (2001) describes, therefore, that children may be positively or negatively affected by their working experience depending on how their work is perceived culturally, socially, and economically in their communities. In this perspective, thus, attention is paid not only to kinds of work but also to the values of work they are engaged in to analyze the appropriateness of the working experience of children. Children's economic participation is not the only child labor. Girls' housework, which tends to be missed as child labor/work, for example, can be child labor/work depending on the social, economic and cultural value on it (Woodhead ,2001).

### 2.3. Literature review

This subsection explores the existing Ethiopian literature relating to the effects of children's engagement in different forms of work on school attendance and school performances. In addition, literature dealing with the current demand for child work in coffee plantation and the consequence of this on school attendance and school performances of children who are from intense coffee growing agricultural communities are reviewed.
2.3. 1. Effects of children's work on school attendance and school performances

Many Ethiopian children enter the education system expecting to complete the eight years of their compulsory primary education. Unfortunately, significant proportions of these children are unable to continue their education because of their involvement in different forms of work. For
example, a 2002 UNESCO report on the situation of children and women in Ethiopia indicated that at some points during the school year in 1998, as many as 21.1 percent students (16.0 percent male and 24.7 percent female) in urban schools and 24.7 percent students ( 28.0 percent boys-male and 19.3 girls) in rural areas quite their school because of the need to work (UNESCO, 2002).

Similarly, the data collected by the "Stand-Alone National Child Labor Survey in Ethiopia" revealed that schooling was highly affected by children's involvement in productive and household activities (CSA, 2002). Among children who were attending school and working, about 39 per cent responded that their involvement in work had affected their schooling. This figure was 29 per cent for urban children and 42 per cent for rural children but there was no significant difference between male and female children in this regard (CSA, 2002).

Using data obtained from 3115 children aged 7 to 17 years in 5 populous regions of Ethiopia; namely, Addis Ababa, Oromia, Tigray, Amhara and SNNP, Young Lives longitudinal survey study in Ethiopia conducted by Tasew et.al (2002) shows the negative effect of work on school attendance and dropout rates. The study revealed that the absenteeism and dropout rates were higher for children who combined school with work than for those who studied full time with little involvement in work activities. The dropout rate was substantially higher ( 81 per cent) for rural than urban (19 per cent), indicating that child work is partly responsible (if not the main reason), for dropping out and sporadic school attendance.

An IPEC assessment of child domestics in Addis Ababa conducted by Abiy Kifle (2002) showed that child domestics arrive late and attend school sporadically. In addition, the response of teachers who were interviewed in the study reported that working students have problems concentrating in class, and unlike other pupils they constantly complained that they had no time to devote to assignments and homework given by their teachers. Even when children are attending school they are still required to help with household chores, which can hamper their achievement in school and thus their possibility of continuing in education.

Long working hours are often responsible for fatigue that can cause sporadic school attendance, and impair intellectual development. Some research shows that student employment begins to correlate with dropping out when the student regularly works over 14 hours per week (Mann

1986, 1987). Other research places the critical level for employment higher, at 20 hours per week (Winters 1986), with the likelihood of dropping out increasing with the number of hours worked.

Time-use studies show that girls are generally required to spend more time on household chores than boys Oxaal (1997). Girls' labor is used to substitute for mothers' in work such as caring for siblings, fetching wood and water, caring for animals and pounding grain. Although there are no reliable estimates for the number of children engaged in domestic chores and other household work that does not lead to marketable output, the number of such children is several times greater than those formally described as economically active and thus comprising child labor and the number of girls who are engaged in these forms of work is higher than boys. In countries where data exist, girls appear to work more hours, which is consistent with gender differences in educational enrollment rates.

Boys may also be required to contribute their labor although with different tasks. In Southern African pastoral societies (e.g. Namibia, Zimbabwe, Lesotho, Swaziland), boy's labour is in heavy demand, and girls outnumber boys at primary level. In Bangladesh, while girls between the ages of 13 and 15 spend ten times as many hours as boys on household activities, boys spend twice as much time on crop production and five times as much time in wage work (Pitt and Rosenzweig 1989, cited in Herz et al. 1991). Girls too may contribute wages earned to household survival, especially in households experiencing extreme poverty.

In the case of Ethiopia, girls are mainly engaged in domestic activities (e.g. collecting firewood and water food preparation washing clothes ) while boys are involved in productive activities (e.g. cattle herding weeding harvesting, digging farm lands , petty trading wage work). The participation rate in productive activities was 62 per cent for boys and 42 per cent for girls. For domestic activities this figure was 22 per cent for body and 44 per cent for girls. Given the marked gender division of girls being engaged in housekeeping activities and boys engaged in productive we can safely assume that the negative effect work on schooling is similar for both predictive and housekeeping activities (CSA, 2002).
2.3.2. Demand for child work in coffee Production and its effect on school attendance

According to Bureau of African Afairs (2006), coffee is the major agricultural crop in Ethiopia, providing $35 \%$ of Ethiopia's foreign exchange earnings, down from $65 \%$ a decade ago because of the slump in coffee price since the mid-1990s. Given the agricultural and economic significance of coffee not only to the producing regions but also to the country in general, an unknown number of children are to be found in this sector which is claimed to provide $25 \%$ of the total labor in the country (Mulgeta, 2000).

In coffee growing communities, child work is the result of capital market failures: when households cannot afford education for their children and cannot borrow for this purpose, although the long-term benefits would be high. Falling coffee prices have destroyed the livelihoods of an estimated 25 million coffee producers globally. The steep decline in coffee prices has increased the pressure on producers to cut labor costs by using child labor, including family members. Reduction in international coffee price has serious impact on the poverty of households and children who depend on this labor intensive commercial agricultural crop.

Children in poor families are particularly likely to miss out on schooling because of the perceived and actual costs to households of a child's schooling. These costs are both direct (e.g. fees, books, pencils, paper, required clothing, transport) and opportunity costs. For example, data from Morocco reveals that reasons for non-attendance differ by gender, and that poverty was more likely to be a constraint for girls. Poverty was found to be a reason for non-attendance for 15.8 percent of girls, but only 8.9 percent of boys. In the poorest expenditure group, girls were much less likely to attend school with 48.5 percent non-attendance for girls versus 22 percent of boys (World Bank 1994).

Ethiopia's coffee income has dropped by US $\$ 110$ million, severely affecting the one million families who depend on coffee for their income (Tessema, Abreham, and Yehasab (2002). Due to this massive slump in coffee price, the Ethiopian coffee farmers are facing a sharp increase in poverty and hunger. As economic conditions decline for families in parts of the country (especially in coffee growing areas); more children may drop out of school because of school costs and/or the need to contribute to the family income. Therefore, exploring the relationship between a child's main activities on the coffee sector and household poverty status is highly
policy relevant when considering how to reduce childhood poverty in Ethiopia's coffee growing agricultural communities.

In addition, the fact that coffee is labor intensive crop, is predominantly grown by the small household, implies that the whole family is involved in its production and harvest. On that basis, it is likely that children from coffee growing house hold will more often tend to work than others in addition to their school attendances. The geographical location of coffee farms in Ethiopia exacerbates the problem of child labor in coffee sector. Coffee farms in Ethiopia are located in the remote areas where there are few transportation is available. This situation is likely to increase incidents of child labor in the coffee sector because of the additional cost required in transporting coffee to the local market. Child workers provide employers with a low-cost and easily subjugated labor force in transporting coffee to the local market.

Because coffee production is labor-intensive, the demand for children's involvement in picking and selling is high (Pereznieto, Paola and Jones, Nicola 2005; Abebe, 2007; and Adem, 2009). Children are engaged in all aspects of coffee production and are especially busy during harvest times. In addition to picking and coffee berries, children often prune coffee trees, weed and fertilize the trees sort coffee beans, and transport beans and other supplies. Such involvement of children into these activities is likely to increase incidents of non-attendance and dropout.

A qualitative research finding in Ethiopian coffee growing areas (Pereznieto, Paola and Jones, Nicola, 2005) suggests that in coffee growing areas the participation of children in coffee production work has encouraged sporadic school attendance and school dropout. The adverse impact of work on school dropout was particularly strong for children whose families were dependent on this labor intensive crop for their survival. This was evident from the Young Lives interview data obtained from a 15 year old girl coffee retailer who stated that
> "I stopped attending school because I had to sell coffee and earn an income because my father and mother are both teachers and they stay at their work place all day long. I was thus responsible for taking care of my younger brothers and sisters by selling coffee." (Pereznieto, Paola and Jones, Nicola 2005:6)

To further examine and better understand the scope and extent of this problem, it is vital to conduct micro-level studies of the situation of students in coffee growing agricultural
communities. However, the true number of school children involved in agricultural work on a coffee farm and how this is related to school attendance and school performances has not been studied. Moreover, the current and prospective labor demand for child workers in the coffee sector, and the consequence of this on school attendance and school performances has been little studied and warrants much more research.

According to the CSA (2002) report, more children in Ethiopia work in agriculture than any other economic sector. The agriculture-based Ethiopian economy is highly dependent on coffee produced in these regions as it contributes more than 60 per cent of the country's foreign exchange earnings. No other product or service in Ethiopia has earned as much. The labor intensive tree crop also provides much employment in rural areas and is the means of livelihood for over 15 million people in Ethiopia (Tessema, Abreham, and Yehasab ,2002).

Though coffee is one of the principal labor intensive agricultural crops produced in Ethiopia, very little is known about the true number of children involved in the coffee sector. However, taking into account that coffee is the main source of income in these regions; many children in the country's leading coffee growing regions may have been engaged in some forms of agricultural work performed on coffee farm. Unfortunately, there are a no or little studies on types and regularity of agricultural work activities undertaken on a coffee farm by children and how this is related to school attendance and school performances in Ethiopia's intense coffee growing agricultural areas

## Chapter Three: Research Methodology and Research Design

### 3.1 Introduction

The purpose of this study was to determine the patterns of children's work combined with schooling and its association with school attendance in coffee and non-coffee picking seasons among students enrolled in primary schools serving intense coffee growing agricultural communities in Sidama Zone, southern Ethiopia. To that end, the previous chapters covered the theoretical framework and literature review that guided this study. This chapter discusses in detail the different components of the research design and research methods. The chapter is organized in seven sections: (a) the description of the study area, (b) research design, (c) sampling, (d) instruments of data collection, (e) validity and reliability, (f) data analysis, (g) procedures of data collection and (h) ethical consideration.

### 3.2. Description of the study area

This study was conducted in the Sidama Coffee Livelihood Zone of the Southern Region of Ethiopia. Sidama is a zone in Southern Nations and Nationalities Peoples Regional State (SNNPRS) of Ethiopia. The capital is Hawass town located 275 south of Addis Abeba. According to the 2007 census conducted by Central Statics Agency (CSA) the zone has a total population of $2,954,136$, of whom $1,491,248(50.48 \%)$ are men and $1,462,888(49.52 \%)$ women. It has a total area of $6,538.17$ square kilometres. Of the above total population $5.51 \%$ are urban dwellers while $0.18 \%$ pastoralist and the remaining $94.31 \%$ are rural inhabitant whose life is attached to agriculture. Currently, Sidama is divided in to 19 (districts) and on average each district has a population of 100,000 . Of these 19 districts, seven administrative districts called woredas (Amharic) are identified as the Sidama Coffee Livelihood Zone (Wolassa L Kumo, 2013).

With regard to weather condition, Sidama is divided into three ecological zones. These are Dega (relatively cool), Woinadega (Moderate), and Kolla (hot). Woinadega constitutes the highest percentage ( $60 \%$ ) of the area, while Dega and Kolla cover $30 \%$ and $10 \%$ respectively. Sidama's yearly temperature ranges from 10.1 to 32 C 0 (P.1), while rainfall ranges from 801 mm to 1600 mm . The Sidama Coffee Livelihood Zone covers the midland (woina dega) areas of Sidama Administrative Zone, including parts of Dara, Aleto Wondo, Dale, Shebedino, Awassa,

Hulla, Bensa and Aroresa woredas( see the map bellow). The main coffee harvesting period is October to December, but there are some variations from one area to the next depending on altitude. Lower areas tend to harvest early, starting in September, while higher areas can harvest as late as January.

Being one of the major coffee producing regions in Ethiopia, Sidama supplies over $40 \%$ of washed coffee to the central market. In addition to coffee production, households in the study area have traditionally engaged in various combinations of livelihood activities including: cereals (maize, sorghum, barley, wheat, tef), legumes (beans, peas), root crops (enset, taro, potatoes, sweet potatoes), fruit trees (banana, avocado, citrus, mango), livestock (cows, oxen, sheep, goats, chickens, pack animals, bees), timber (eucalyptus), off-farm work (shop keeping, civil service, trading, enset processing, laborer, priest) and trades (pottery, black smithing, weaving, basketry, building) (Michael Dougherty ,2002).

The education coverage of the region was at its lowest stage before the implementation of Education and Training Policy (ETP). It was below 19 percent. Today, there are 672 government schools and 73 non-government primary (1-8) schools in Sidama. In addition, there are 24 first cycle secondary ( $9-10$ ) schools and 8(eight) preparatory (11th-12th) schools in the zone. Further, there are one Government University, two government technical and vocational training colleges, two government health colleges, and one government teacher-training institute. The provision of education has shown remarkable improvement from year to year (SNNPR Education Bureau, 2012).
Ethiopia
southern Ethiopia


## Sidama zone

Figure 3.1: Map of the study area

### 3.3. Research design

The mixed methods approach was used in this study. The advantage of the mixed methods approach is that both approaches (quantitative and qualitative) have strengths and weaknesses, and that the weakness of one can be remedied or compensated for by the strengths of the other (Creswell and Plano Clark, 2007). Another advantage is that the mixed-methods approach can answer a broader and more complete range of research questions (Johnson and Onwuegbuzie, 2004). Furthermore, applying the mixed methods approach can improve insights into and understanding of the data, which might be missed when using a single approach. Mixed methods can also be applied to increase the generalisability of the results of a study (Johnson and Christensen, 2004).

Creswell (2003) describes six different strategies for mixing qualitative and quantitative methods depending on 1) the implementation sequence, 2) priority, 3) the integration stage of quantitative and qualitative data collection and analysis and 4) the role of theoretical perspective in the study. The six strategies are termed as sequential explanatory, sequential exploratory, sequential
transformative, concurrent triangulation, concurrent nested and concurrent transformative strategies (Creswell, 2003).

Out of the six strategies identified by Creswell (2003), a concurrent triangulation mixed methods design of combining both qualitative and quantitative approaches served as a model for this study. In this strategy both types of data are collected and analysed at the same time. Priority is equal between the methods and the integration occurs during the interpretation stage of the study. The figure bellow provides a diagram of the Concurrent Triangulation mixed methods design being used for this study.


Quantitative Data Collection

Quantitative Data Analysis

Qualitative Data Collection

Qualitative Data Analysis Data Results Compared

Figure3. 2: Diagram showing the concurrent triangulation mixed methods design

In Concurrent Triangulation mixed methods design there are two concurrent data collection phases.

### 3.4. Sampling and study participants

In the quantitative phase of the study a multi-stage random sampling procedure was used to select primary school-going children at different levels. The Sidama Coffee Livelihood Zone is composed of seven administrative districts called woredas (Amharic). Each of these seven woredas covers the midland (woina dega) areas of Sidama Administrative Zone. To get a representative sample of the whole of coffee growing areas in Sidama, Two coffee growing woredas were randomly selected from the list of seven intense coffee growing areas in the first stage using ballot papers. Following this, two primary schools were randomly selected from each selected wereda using ballot papers. There were four classes in each selected second-cycle primary school, one class for each grade level from grade five to eight. Thirty students were randomly selected from each class to form the study school using ballot papers. Thus, a total of 240 students from 2 woredas were included in the study, which was composed of 4 schools x 4 classrooms x 15 students $=240$ participants. Although 240 students were randomly selected to participate in the survey, only 221 respondents returned a usable questionnaire. The response rate was $91.3 \%$ which is acceptable in educational research (Warsiema 2000).

In addition, a purposive sampling technique was used to select three students, two teachers one school principal, and one cluster school supervisor in the qualitative part of the study. Teddlie Charles and Yu Fen $(2007,77)$ defined purposive sampling as a type of sampling which involves "selecting units (e.g., individuals, groups of individuals, institutions) based on specific purposes associated with answering a research study's questions." The advantages of purposive sampling include the ability to select participants who have rich amount of information regarding the study variables. Among the four schools selected in the quantitative phase one school was deliberately selected because of its proximity. Many of the primary schools in the study area are surrounded by intense coffee plantation. The school selected for the qualitative phase of the study is located in one of the study area known for its high coffee production. As in other schools, the selected school serves children who are from coffee growing agricultural communities in the study area.

The number of years of teaching experience in the selected school was used as a criterion to select the teacher sample for qualitative sample which served as important data source
triangulation. Teachers who were new to the school and with less than 5 years of teaching experience were not eligible to participate in the study. Accordingly, two teachers, one school principal, and one cluster school supervisor who worked in the school longer that the 5 year eligibility criterion were included in the final teacher sample. For the student sample used in the qualitative phase of the study it was also important to indentify students who have combined work and school attendance. Finally, three students (one girl and two boys) were known to have combined work and school responsibilities included in the study in consultation with their classroom teachers.

### 3.5. Instruments of Data Collection

Three sets of data collections instruments developed by the investigator were used to secure the necessary data for this study: the student questionnaire, the student interviews and the teacher interview

## The student questionnaire

A student questionnaire was developed by the investigator in order to secure the necessary data from the students (see appendix 1). Items included in the questionnaire were constructed based on visits to schools, informal talk with school principals and teachers, and an extensive review of literature on the relationships between patterns of children's work and school attendance. Preliminary analysis was made to remove the ambiguity and ensure the logical validity of the items. The final instrument included items in three parts

The first part asked respondents to indicate demographic information. Participants were asked to describe their background characteristics, including (a) age; (b) gender; (c) whether or not they have brothers and/ or sisters; (d) grade level; (e) place of residence; (f) the language spoken at home; (g) religion; (h) ethnic origin; and (i) means of transportation they used when they arrive to school. The responses were analyzed based on the codes provided in the response set.

The second section of the questionnaire included three measures related to the extent of children's work pattern: (i) Incidence of farm work (ii) Incidence of domestic work, and (iii) Incidence of off-farm work. In order to collect data on, and obtain a picture of, children's work pattern combined with school learning, a broad definition of work was used and this included: farm work, household or domestic work and off-farm work. In addition, due to the seasonal
nature of farm work and off-farm work in the study area, a one year reference period was used in the items to capture the engagement of students in both types of work. However, a one week reference period used one item measuring the incidence of domestic work among students. All items used in this section were close-ended type, and the response options were (a) "Yes, I have undertaken" (b) "No, I have not". The following section provides description of the three different measured used in the student questionnaire.

Incidence of farm work combined with school learning. There were four items designed to measure the proportion of students who combined farm work with school attendance. Specifically, students were asked to indicate whether or not they were engaged in each of following types of farm work activities for at least one hour in the past school year when their school was in session and classes were running: (a) Pickingand Processing Coffee, (b) Harvesting and Processing Non-Coffee Crops, (c) Non-Harvest Farm Work, and (d) Animal Care and Tending. In each of these items, respondents were given instruction in the questionnaire about what to count as farm work in each categories of farm work.

Incidence of domestic work combined with school learning. The next question in the questionnaire used a one week reference period to measure the incidence of domestic work among students. Accordingly, respondents were asked to report whether or not they were engaged in domestic work activities or household chores in the past seven days when their school was in session and classes were running. Respondents were given instruction in the item about what to count as domestic work. This included house cleaning, washing clothes, cooking, fetching water, collecting firewood, caring for siblings / childcare or the sick or elderly people in own home, shopping, going to mill and other types of housework.

Incidence of off-farm work combined with school learning. The third measure in the section of the question included eight items to measure the incidence of off-farm work among the study participants. Respondents were asked to report whether or not they were engaged in each of following types of off-farm work activities for at least one hour in the past school year when their school was in session and classes were running: (a) Small scale Coffee Trading or Business (b) Paid work in Coffee Pickingand processing,(c),Trading Non-Coffee Produce and Selling Animals,(d) Producing and Selling (e) Artistic or Craft work (f) Semi Skilled technical work (g) Casual work (h) Street Vending and (i) Non-coffee Wage Work.

The third section of the questionnaire included four measures related to the extent of children's work pattern. The first two measures pertained to regularity and intensity of children's work. The first item stated in this section asked participants to report the average number of days they had spent working per week in the past 10 school months in all type of work they combined with school responsibilities. The response options for this item ranged from (1) zero day per week, (2) one day per week, (3) two days per week, (4) three days per week, (5) four days per week , (6) five days per week, (7) six days per week, and (8) seven days per week. In the second item, respondents were also asked to estimate the average number of hours per day they worked in a typical school day in the past 10 school months using an eight-pint response scale ranging from "zero hour per day" (1) to seven or more hours of work per day (8). Higher score in both item indicated high number of days worked per week and hours per day in the past school year respectively.

In addition, using response types similar to the two measures described in the preceding paragraph, two additional measures were also included to gather information about (1) intensity of children's work in coffee picking school days (average number of hours spent working per day in coffee picking school days which is defined as the first four school months (from September to December) that coincide with coffee harvest work season in study area), and (2) the intensity of work in non-coffee picking school days (average number of hours spent working per day in non-coffee picking school days which is defined as the last four school months (from February to June) that coincide with non-coffee harvest agricultural work season in study area). Higher scores in all measures used in this section indicated high number of days worked per week and high hours worked per day in the past school year respectively.

The last section of the questionnaire contained three items designed to measure students' attendance record. The first item asked students to estimate and mark the total number of days they were absent from school over the last school year. There were seven possible answers to this item: (1) Never or 0 days per year, (2) Between 1-3 days per year, (3) Between 4-6 days per year ,(4) Between 7-9 days per year , (5) Between 10-12 days per year , (6) Between 13-15 days per year, and (7) More that 15 days or 2 weeks per year. Accordingly, the students' high score on the item indicated low or poor school attendance record and low or zero score on the scale meant high or regular school attendance record.

Finally, the school attendance rates that the students have registered in coffee and non-coffee picking school terms and days were measured using two items designed separately for each time periods. In each item, students were required to report on a 5-point Likert-type scale ranging from (1) "One day per week",(2) "One day per month ", (3) "One day per quarter(two months),"(4) " One day per three months", and to (5) "One day per semester". Low score in these items indicated low or poor school attendance record while high score in the two items meant high or regular school attendance registered by the respondents in coffee and non-coffee picking school terms and seasons respectively.

## The student interview

A semi-structured interview procedure was used to examine in depth the work and school attendance experiences of three respondents to the student questionnaire, to build on findings from the student survey and gain a deeper understanding of the nature of work undertaken and the school attendance experiences in coffee and non-coffee picking school days. This allowed the researcher to probe into areas on which participants were able to expand their ideas. The student interview also gave the participants freedom to express their ideas about the study variables that not addressed or limited in the student questionnaire.

The student interviews incorporated several open-ended and probing questions, which allowed the participant to derive responses from their own perspective (see Appendix 2). The questions guiding the interview were developed from the review of literature on child work/child labor and school attendance according to the specific context of the study. This interview reviewed the content of the original questionnaire but more importantly allowed for the collection of additional information on the opinions and views of the interviewees regarding their experience on work and school attendance. The lists of questions included in the student interview guide were organized in three sections.

First, general questions were asked about children's background information, including the characteristics family, other household members, and the relationship they have with family members. Second, the student interviews guide incorporated open-ended items designed to probe their experience of work undertaken while studying. Students were asked to respond to a series of questions designed to assess how they spend their time outside school and their engagement in
different types of work activities outside of schools. Some interview questions that were stated to inquire about student's work included definitions of domestic, farm and off-farm work activities. The items begun with the statement, "I will read you the definition of domestic work...." and was followed by series of probing questions. They were also asked some questions about how their work pattern changes in two different seasons that coincide with the school year; namely, in the coffee picking and non-coffee picking school terms. Third, during the interview, the students were asked to provide their views about their school experience in the past academic year in general and their attendance pattern in coffee and non-coffee picking school terms in particular, as well as their perspectives on the effect of combining work with school on school attendance.

## The teacher interview

A teacher interview guide (semi-structured) was the third instrument used in the study to collect additional information on school teachers and principals' perspectives regarding school-going children's work and school attendance patterns during coffee and non coffee picking school terms( see Appendix 3). The teacher interview schedule consisted of open-ended questions with appropriate probes. Each interviewee was asked to comment on their perception of the nature and extent of child work prevalent in the study area and its association with school attendance particularly, in the coffee and non-coffee picking school days.

### 3.6. Validity and Reliability

Validity and reliability are two of the most important criteria of a good piece of research. In mixed methods research, such as this study; wherein quantitative and qualitative approaches are combined, discussions about "validity" and reliability issues are in their infancy (Onwuegbuzie and Johnson, 2006). Recognizing this, Creswell, J. W (2009) has noted that many writers on mixed methods advocate for the use of validity procedures for both the quantitative and qualitative phases of the study. In this study, as both quantitative and qualitative methods are employed, the following section presents the various measures take to establish used validity and reliability of the study.
3.6.1. Validity and reliability in the student questionnaire

Validity within the context of quantitative study is simply defined as the degree to which the instrument measures what it intended to measure (Cohen, Manion and Morrison, 2007). In the
current study, the student questionnaire which was used in the quantitative phase was subjected to content validity by three school teachers and two Hawassa University staff members and their feedback was incorporated into the final draft of the questionnaire. In addition, the questionnaire was developed based on careful analysis of the related literature. Moreover, various child labor survey questionnaires that have been developed on the basis of the ILO Conventions No. 138 on Minimum Age for Admission to Employment (1973) and No. 182 on the Worst Forms of Child Labour (1999) were reviewed to develop the data collection instruments. These included national survey of children's work such as the Ethiopian Demographic and Health Surveys (EDHS) and Ethiopian Child Labour Survey as well as Child Labour Surveys of the International Labour Organization's Statistical Information and Monitoring Programme on Child Labour (ILOSIMPOC). Furthermore, a brief introduction, providing details about the researcher, his affiliation, the title of the project, the purpose of the research, the value of participation in the survey and a general definition of work and its related terms, was provided at the top of the questionnaire to confirm the interpretation of the questions and the validity of the survey.

Reliability is another key criterion addressed in quantitative research. Whereas the criterion of validity refers to the extent to which the study measures or tests what is actually intended to measure, reliability in quantitative research simply means that the research findings can be repeated (Cohen, Manion and Morrison, 2007). Evaluation of reliability often involves the use of correlation coefficients (Warsema, 2000). To increase research reliability, researchers recommend using pretests, pilot studies and replication (Neuman, W 2003). In the case the current study, however, these techniques were not employed due to the nature of the items used in the student questionnaire. For instance, items designed to measure the proportion of students who combined different types of work with school attendance were categorical items with "Yes" or "No" response type. Similarly, although the various sections of the student questionnaire included items that were stated in a Likert-type scale, each variable investigated in the study was measured in a single item. Hence the questionnaire used in the present study did not lend itself to make statistical analysis of reliability. Nevertheless, the fact that the survey instrument used in the current study was modeled after the Ethiopian Demographic and Health Surveys (EDHS) and Ethiopia Child Labour Survey as well as Child Labour Surveys of the International Labour Organization's Statistical Information and Monitoring Programme on Child Labour (ILOSIMPOC) can enhance the reliability of the study. Besides, each item in questionnaire had a
concrete answer, contained just one idea, was worded using standard Amharic, avoided biased words, and was not too personal.
3.6.2. Validity and reliability in the student and teacher interviews

In qualitative research, discussions of validity and reliability have been more contentious and different typologies and terms have been produced. According to Cohen, Manion and Morrison (2007) validity and reliability support quantitative research whereas trustworthiness or authenticity supports qualitative research. Onwuegbuzie and Johnson (2006) suggested credibility, transferability, dependability, and conformability establish trustworthiness in qualitative research. Credibility deals with the question, "How congruent are the findings with reality?" (Onwuegbuzie and Johnson, 2006: 64). Transferability is the ability of other researchers to apply findings in future research. Dependability has to do with the strength of the qualitative research findings, while conformability is concerned with the lucidity of the data to outcomes (Onwuegbuzie and Johnson, 2006).

In terms of the current research, credibility was achieved by including respondents who expressed willingness to participate in the study, by encouraging them to be frank from the outset and by making constant use of probes and iterative questioning. Interviewees were also assured of their rights to withdraw from the study at any point in the process. In addition, the comments and suggestions made by colleagues, fellow classmates, the thesis advisor and supervisor after careful and detailed examination of the research process has enabled the researcher to refine his methods, develop greater explanation of the research design and strengthen his arguments. Moreover, the accuracy of the data obtained was checked both during and at the end of each interview by reading aloud the summarized transcripts of data they have provided and asking them to confirm or reject the statements.

A number of other measures described by Onwuegbuzie and Johnson (2006) were also applied to establish trustworthiness in the qualitative phase of the research. Accordingly, transferability in the current study was achieved using a research study protocol for replicability (see Appendix). Transferability was also ensured by the efforts made in the study to establish the context of the study and provide detailed description of key study variables and themes, as well as the necessary background data. Confirmability was enhanced by verifying participant responses with each student and each teacher during the student and teacher interview sessions respectively.

Moreover, all the questions posed in the interviews were directly linked to the research's aim and objectives and covered all aspects of the topic. Dependability of qualitative data was strengthened by making thorough descriptions of the strategies used to collect and analyze the data and explicit description the research procedures followed in the study as outlined in the following section. The researcher was very careful not impose his own views and biases during the interviews and data analysis. This was achieved by following recommended steps of data analysis for both qualitative and quantitative data collected.

### 3.7. Method of Data Analysis

This mixed method study used multiple sources of data. Accordingly, both quantitative and qualitative data analysis techniques were used to analyze and interpret the different data. This section describes the two methods used to analyze the data.

Quantitative data analysis: Two statistical methods were used to analyze the quantitative data obtained from the student questionnaire: descriptive and inferential statistics. The descriptive method of analysis involved the use of percentages, frequency counts and cross-tabulation of children's background demographic characteristics and the proportion of students who combine different categories of work activities with school learning. In addition, mean and standard deviations was used to describe and compare children's work and school attendance pattern in coffee and non-coffee picking school days. In addition to the descriptive techniques, a chi-square goodness-of-fit test, one-sample t-test, a paired sample t-test, independent sample t-test, and Pearson Product-Moment Correlation coefficient were used to analyze the quantitative data collected from the student questionnaire. All statistical significance tests were made at alpha 0.01 levels and data entry and analysis was performed using IBM SPSSWIN computer software packages version 20.

Qualitative data analysis: The study also used a qualitative approach to analyze the data obtained from the student and teacher interviews. In both cases, interviews were transcribed and relevant themes were identified through a process of coding and condensing the codes. Code names were assigned to themes that were identified and then organized into categories of related topics, patterns, concepts, and ideas that emerged from participants' perspectives. The process included reading and re-reading the transcripts, applying codes and identifying themes based on the codes. This was done both for individual student and teacher participant responses. Actual
quotes of the interviewees were also used to describe certain points of view. Finally, analysis of interview data was conducted manually.

### 3.8. Procedures of data collection

Data was collected into three phases. Phase one involved preliminary visits to the selected Wereda (district) Education Bureaus and schools. The purpose was to gain adequate understanding of the schools and to establish a relationship of trust between the researcher and school authorities, teachers and principals. A second purpose for making preliminary visits to schools was to collect school attendance records of students. Once the attendance record was obtained, the researcher has made careful examination of school attendance records. Unfortunately, analysis of the school attendance record revealed that the school attendance records were not kept accurately. From the school attendance record sheets, it was not possible to tell exactly which student was really absent or present on a particular school day not only by the researcher but also by another school teacher who the researcher sought help for interpreting the attendance data. Hence early in the research process, the researcher decided to collect children's school attendance data using participants 'self-reported data instead of using the inaccurate school records.

The second phase was concerned with the task of developing the questionnaire and interview guides needed to collect the necessary data. Initially, draft questionnaire interview schedule were developed following a comprehensive review of the literature pertinent to the research objectives. Following this, the draft questionnaire and interview schedule were subjected to content validity by three school teachers who are working and residing in the study area. In addition, criticisms were sought from two Hawassa University staff members who were teaching in the School of Education and Training. The three teachers and the two lecturers were selected because of their familiarity with school children who are attending schools in the study area.

Phase three was entirely devoted to field work. The fieldwork comprised three main elements: training of teachers to collect data, conducting interviews with children and with school teachers. The original plan was to distribute the student questionnaire to individual student. However, it was decided to interview students using the structured questionnaire since consultation made with the two Hawassa University lecturers and the three school teachers in phase one suggested that the students might not be able to provide the necessary data because of their poor reading
ability. Hence, it was necessary to select and train teachers from the randomly selected sample schools as data collectors.

Accordingly, 16 teachers (4 teachers from each selected schools) were selected and trained for one day on data collection and to interview students using the student questionnaire developed for the study. The training lasted for four days, and four teachers were trained in each day in each school. In each school, the training was conducted at the school principal's office. The training covered instructions in general interviewing techniques, field procedures (including sample selection using ballot papers), and a detailed discussion of items on the questionnaire and practice interviews in the field.

A second element in the fieldwork consisted of interviewing the students using the student questionnaire. After the training of data collectors, students who were randomly selected were interviewed one at a time on Monday through Friday before or after school hours. One trained teacher was responsible for interviewing a maximum of 15 students registered in one classroom. The researcher regularly visited and often stayed with the data collectors throughout the student interview period to closely supervise and monitor them. Data collection from students took place over two-week period from 16 September 2015 to 30 September 2015. Data obtained from the structured student questionnaire through the interview comprised the quantitative part of the study.

A third element in the fieldwork was interviewing the three students and three school teachers. The three students sampled for the qualitative phase of the study were respondent to the student questionnaire which was administered by the trained teachers (data collectors) and were known to have combined work with schooling. They were included in the study in consultation with their classroom teachers to build on findings from the student survey and gain a deeper understanding of the experience of children's work and school attendance in coffee and noncoffee picking school days, the nature and extent of work undertaken, and impact of working alongside school responsibilities on the school attendance. Finally, both the three students and three school teachers were interviewed by the researcher using a separate interview guides developed for qualitative phase of the study. The student interviews were conducted in the school compound during free class periods while the teacher interview was arranged in the school principal's office. In both cases interviews lasted between 20-25 minutes

### 3.9. Ethical Considerations

Ethical issues were addressed at each phase of the study. First the study received approval from the Norwegian Social Science Data Services (Norsk Samfunnsvitenskapelig Datatjeneste (NSD) before gathering any data. Second, anonymity and confidentiality were ensured by assigning code numbers to each participant. Individuals participating in this research provided their consent and were free to withdraw from the research at any time. Third, the specific location of the schools included in this study was not revealed. Participants were informed that their responses would not be traceable.

Forth, the study also attempted to avoid the power imbalance between the data collectors and respondents. For completing the student questionnaire, only the first-cycle teachers (teachers who were teaching fourth grade students and below) were used to interview second-cycle students in each selected school. The children who were selected for the interview were fully aware of the nature of the study and the confidentiality of the interview since they were selected from among those who participated in the student questionnaire survey. The researcher has also spent some time with the students at the start of each interview to reduce the power imbalance and to ensure that students were fully aware of the nature of the study and the confidentiality of the interview. Finally, the teachers who were interviewed in this study were also fully informed about the nature of the research, and the expectations regarding their participation. Finally, all response data was managed in compliance with NSD's ethical practices for storage and destruction of information.

## Chapter Four: Findings

### 4.1. Introduction

The purpose of this study is (1) to determine the patterns of children's work combined with schooling and its association with school attendance in coffee and non-coffee picking seasons among students enrolled in primary schools serving intense coffee growing agricultural communities in Sidama Zone, southern Ethiopia; (2) to understand the working and schooling experiences of students who combine work and schooling, (3) to explore meanings ascribed to those experiences in selected communities where most people are coffee growing farmers, and (4) to uncover the school teachers and principals' perspectives on children's work burden and school attendance patterns during coffee and non-coffee school terms

The mixed methods approach was used in this study. Specifically, a concurrent triangulation mixed methods design of combining both qualitative and quantitative approaches served as a model for this study. Accordingly, a total of 240 students were selected through a multi-stage random sampling procedure and were included in the quantitative phase of the study. In addition, a purposive sampling technique was used to select three students, two teachers, one school principal, and one cluster school supervisor in the qualitative part of the study. Three sets of data collections instruments developed by the investigator were used to secure the necessary data: the student questionnaire, the student interviews and the teacher interviews.

This chapter presents the findings of the study. The chapter is organized into two major sections. In the first section of this chapter quantitative findings are presented while the second sections of the chapter present findings obtained from qualitative part of the study. In the quantitative results section, distribution of the study participants across selected demographic characteristics is presented. This is followed by the presentation of results on patterns of children's work and school attendance in coffee and non-coffee picking school days, as well as quantitative evidences of the relationships between patterns of children's work and school attendance respectively. In the quantitative results section, results of the semi-structured interviews conducted with students about children's own experiences of work and school attendance during coffee and non-coffee picking school days and school teachers are presented. The second part of the quantitative results section presents, findings about school teachers and principals' perspectives on children's work burden and school attendance patterns during coffee and non-coffee picking school terms.

### 4.2. Quantitative Findings

The primary source of data for the quantitative phase of this study was the student questionnaire which was developed by the investigator. This section presents the findings from the student questionnaire. It is divided into four subsections. In its first part of this section, distribution of the study participants across selected demographic characteristics is presented. This is followed by the presentation of results on patterns of children's work in coffee and non-coffee picking school days. In the third part, the results obtained about children's school attendance in coffee and noncoffee picking school days are presented. Finally, it presents evidences of relationships between patterns of children's work and school attendance.

### 4.2.1. Background Demographic Characteristics of Study Participants

A survey questionnaire was developed by the investigator in order to secure the necessary data. The first section asked respondents to indicate demographic information. Findings are presented in the table below. As depicted in Table 1 bellow, the study participants are described by age, gender, whether or not they have brothers and/ or sisters, grade level, place of residence, the language spoken at home, religion, ethnic origin, and means of transportation they used when they arrive to school. Accordingly, males are slightly above half of the total sample (male $=$ $62.0 \%$ and female $=38.0 \%$ ) out of which $2.2 \%, 4.4 \%, 18.1 \%, 27.4 \%, 22.1 \%, 19.4 \%, 6.2 \%$ of the respondents are within the age group of 10 year and below, $11,12,13,14,15$, and 16 years old respectively.

Seen in terms of whether or not the respondents have brothers and/ or sisters, a very small proportion of the respondents ( $4.6 \%$ ) said that they have neither brother/s nor sister/s. The majority of the respondents ( $67.4 \%$ ) reported that they have both brother/s and/or sister/s while $20.6 \%$ have only brother/s and close to $6.9 \%$ have only sister/s. The table also shows that the eighth grade students are slightly over represented in the sample ( $30.6 \%$ ) followed by the seventh grade ( $26.6 \%$ ), fifth grade ( $21.6 \%$ ), and sixth grade students ( $21.2 \%$ ). Furthermore, the table indicates that students with rural background are the majority ( $78.3 \%$ ) represented in this particular study compared to the proportion of students with urban background (21.7\%).

Table 1: Distribution of students by their Background Demographic Characteristics

| Variables | N | $\%$ |
| :--- | ---: | ---: |
| Gender |  |  |
| Male | 137 | 62.0 |
| Female | 84 | 38.0 |
| Age Group | 5 | 2.2 |
| 10 year and Below | 10 | 4.4 |
| 11 years old | 41 | 18.1 |
| 12 years old | 62 | 27.4 |
| 13 years old | 50 | 22.1 |
| 14 years old | 44 | 19.5 |
| 15 years old | 14 | 6.2 |
| 16 years and over |  |  |
| Whether Have Brothers and or Sisters | 45 | 20.6 |
| Have only brother/s | 15 | 6.9 |
| Have only sister/s | 147 | 67.4 |
| Have both brother/s or sister/s | 10 | 4.6 |
| Have No brother/s and sister/s |  |  |
| Grade level | 48 | 21.6 |
| Fifth grade | 47 | 21.2 |
| Sixth grade | 59 | 26.6 |
| Seventh grade | 68 | 30.6 |
| Eighth grade |  |  |
| Place of residence | 177 | 78.3 |
| Rural | 49 | 21.7 |
| Urban | 199 | 88.4 |
| Language spoken at home | 25 | 11.1 |
| Sidamigna | 1 | .4 |
| Amharic |  |  |
| Oromifa | 218 | 96.5 |
| Religion | 7 | 3.1 |
| Christian | 1 | .4 |
| Muslim | 214 | 94.7 |
| Other | 8 | 3.5 |
| Ethnic origin | 3 | 1.3 |
| Sidama | 1.4 |  |
| Amhara | 2 | .9 |
| Oromo | 1 | .4 |
| Others | 213 | 94.2 |
| Means of school transportation | 10 | 4.4 |
| Bicycle |  |  |
| Public transport |  |  |
| Walking |  |  |
| Depends on situation |  |  |

Table 1 also shows the characteristics of the sample in terms of their personal details like: the language spoken at home, religion, ethnic origin, and means of transportation they used when they arrive to school. It could be gleaned that there were 199 or $88.4 \%$ who speak Sidamigna language at home followed by 25 or $11.1 \%$ of students who use Amharic with only one student or $.4 \%$ using other than the two major languages spoken among study participants. In addition, the table indicates that the overwhelming majority were Christians (96.5) followed by Muslims (3.1\%), one only student ( $0.4 \%$ ) following other religion. In terms of their ethnic origin, 214 or $94.7 \%$ were Sidama while 8 or $3.5 \%$ and only 3 or $1.3 \%$ of the respondents were Amhara and Oromo respectively. The table also shows that the overwhelming majority ( $94.2 \%$ ) reported that they usually walked to school while close to 10 respondents or $4.4 \%$ reported that their choice as to what means of transportation to use to go to their school depends on the situation. Only 2 or $0.9 \%$ and 1 or $0.4 \%$ of the respondents reported that they use Bicycle and public transport.

### 4.2.2. Children's work pattern

The student questionnaire also included several items related to the extent of children's work pattern. These included the incidence, the regularity and intensity of children's work combined with school learning. In order to collect data on, and obtain a picture of, children's work pattern combined with school learning, a broad definition of work was used and this included: farm work, household or domestic work and off-farm work. Children's work pattern was measured in two ways: (1) children's self-reported incidence of participation in farm, domestic, and off-farm work and (2) children's self-reported regularity (average days worked per week) and intensity (average hours worked per day) of children's work.

## Incidence of farm work combined with school learning

There were four items designed to measure the proportion of students who combined farm work with school attendance. Specifically, students were asked to indicate whether or not they were engaged in each of following types of farm work activities for at least one hour in the past school year when their school was in session and classes were running: (a) picking and processing coffee, (b) harvesting and processing non-coffee crops, (c) non-harvest farm work, and (d) animal care and tending. The findings are presented in the table below.

Table 2: Incidence of farm work combined with school and chi-square goodness-of-fit test

| Types of work | N | $\%$ | Chi-Square $(d f=1)$ |
| :--- | ---: | ---: | :--- |
| Pickingand Processing Coffee |  |  |  |
| Working | 179 | 80.3 | $81.73^{* *}$ |
| Not Working | 44 | 19.7 |  |
| Harvesting and Processing Non-Coffee |  |  | $16.70^{* *}$, |
| Crops | 142 | 63.7 |  |
| Working | 81 | 36.3 |  |
| Not Working |  |  | $23.90^{* *}$ |
| Non-Harvest Farm Work | 148 | 66.4 |  |
| Working | 75 | 33.6 |  |
| Not Working |  |  | $45.74^{* *}$ |
| Animal Care and Tending | 162 | 72.6 |  |
| Working | 61 | 27.4 |  |
| Not Working |  |  |  |

** $\mathrm{p}<.001, \mathrm{df}=$ degrees of freedom
As can be seen from table 2 above, about 179 or $80.3 \%$ of children participated in picking and processing coffee on their family farm. Moreover, as many as 162 ( $72.6 \%$ ) respondents have participated in animal care and tending work activities. It is also evident from the table that the proportion of children who were engaged in harvesting and processing non-coffee crops was slightly lower (142 students or 63.7 \%) than the proportion of children who combined school learning with non-harvest farm work activities which is 148 or $66.4 \%$.

A chi-square test of goodness-of-fit was performed to determine whether the observed proportions of children who participated in each type of farm work differ from hypothesized proportions of $50 \%$ of working and $50 \%$ of non-working children. The chi-square test for goodness of fit determines difference by comparing the observed frequency distribution with the frequency distribution of the null hypothesis. The null hypothesis is the expected frequency distribution of children's farm work status is the same. In case of this study, approximately $50 \%$ of participants would be expected to have combined the list of farm work with school learning.

Table 2 indicates that the results were statistically significant for all types of farm work activities i.e., in picking and processing coffee ( $\chi 2=81.73, \mathrm{df}=1, \mathrm{p}<.001$ ), harvesting and processing noncoffee crops $(\chi 2=16.70, \mathrm{df}=1, \mathrm{p} \times .001)$, non-harvest farm work activities $(\chi 2=23.90, \mathrm{df}=1$,
$\mathrm{p}<.001$ ), and in animal care and tending work ( $\chi^{2}=45.74$, $\mathrm{df}=1, \mathrm{p}<.001$ ). Results of the goodness-of-fit test indicate that the frequencies of students by farm work status are not equally distributed within this class; frequencies are statistically different from what would be expected by chance. It appears that children who combine work with school are disproportionately over-represented in this sample and children who do not work in the farm are under-represented.

## Incidence of domestic work combined with school learning

The next question in the questionnaire used a one week reference period to measure the incidence of domestic work among students. Accordingly, respondents were asked to report whether or not they were engaged in domestic work activities or household chores in the past seven days when their school was in session and classes were running. Respondents were given instruction in the item about what to count as domestic work. This included house cleaning washing clothes, cooking, fetching water, collecting firewood, caring for siblings / childcare or the sick or elderly people in own home, shopping, going to mill and other types of housework.

As depicted in table 3, significant proportions (91.0\%) of the respondents were engaged in domestic work or household chores. A very small number of the respondents ( 20 or $9.0 \%$ ) reported that they were not engaged in any of domestic work or household chores considered in the study. Furthermore analysis of a chi-square goodness-of-fit test results reveals that there is statistically significant difference $(\chi 2=50.18, \mathrm{df}=1, \mathrm{p}<.001)$ between the observed and expected $50 \%$ frequency of engagement in domestic work activities. Results of the goodness-of-fit test indicate that the frequencies of students by domestic work status are not equally distributed within this class; frequencies are statistically different from what would be expected by chance. It appears that children who combine domestic work with school are disproportionately overrepresented in this sample and children who do not combine domestic work with school are under-represented.

Table 3: Incidence of domestic work combined with school and chi-square goodness-of-fit test

| Household Chores or Domestic Work | N | $\%$ | Chi-square $(d f=1)$ |
| :--- | :---: | :---: | :--- |
| Working | 203 | 91.0 | $50.18^{* *}$ |
| Not Working | 20 | 9.0 |  |

**p $<.001, d f=$ degrees of freedom

## Incidence of off-farm paid work combined with school learning

The student questionnaire also included eight items to measure the incidence of eight different types of off-farm work activities among the study participants. Each item asked respondents to report whether or not they were engaged in one of following types of off-farm work activities for at least one hour in the past school year when their school was in session and classes were running: (a) small scale coffee trading or business (b) paid work in coffee picking and processing,(c),trading non-coffee produce and selling animals,(d) producing and selling (e) artistic or craft work (f) semi-skilled technical work (g) casual work (h) street vending and (i) non-coffee wage work. Table 4 presents the findings obtained about incidence of off-farm paid work among study participants and chi-square goodness-of-fit test results

Table 4 indicates that small scale coffee trading or business work is the most common type of work combined with schooling with 129 (57.8\%) students reporting their engagement in this work for at least one hour in the past school year when their school was in session and classes were running. Similarly, 99 or $44.4 \%$ of the respondents have undertaken paid work in coffee picking and processing. Moreover, 82 or $36.8 \%$ of children have participated in trading noncoffee produce and animals. About 77 or $34.5 \%$ of the respondents were engaged in casual work. In addition, as many as 75 or $33.6 \%$ of the respondents were involved in street vending. Among the off-farm income generating work activities included in the study, the participation of students is particularly low in off-farm activities such as producing and selling artistic or craft work (40 or $17.9 \%$ ), semi-skilled technical work ( 39 or $17.5 \%$ ), and non-coffee wage work ( 37 or 16.6 \%).

In addition to determining the proportion of students who combine off-farm work with schooling, a chi-square test of goodness-of-fit was run to see whether the observed proportions of children who participated in each type of off-farm work differ from hypothesized proportions of $50 \%$ of working and $50 \%$ of non-working children.

Table 4: Incidence of off-farm paid work and chi-square goodness-of-fit test results

| Off farm work activities | N | \% | Chi-square ( $d f=1$ ) |
| :---: | :---: | :---: | :---: |
| Small scale Coffee Trading or Business |  |  | 5.49 |
| Working | 129 | 57.8 |  |
| Not Working | 94 | 42.2 |  |
| Paid work in Coffee Picking and processing |  |  | 2.80 |
| Working | 99 | 44.4 |  |
| Not Working | 124 | 55.6 |  |
| Trading Non-Coffee Produce and Animals |  |  | 15.61** |
| Working | 82 | 36.8 |  |
| Not Working | 141 | 63.2 |  |
| Producing and Selling Artistic or Craft work |  |  | 91.70** |
| Working | 40 | 17.9 |  |
| Not Working | 183 | 82.1 |  |
| Semi-Skilled technical work |  |  | 94.28** |
| Working | 39 | 17.5 |  |
| Not Working | 184 | 82.5 |  |
| Casual work |  |  | 21.35** |
| Working | 77 | 34.5 |  |
| Not Working | 146 | 65.5 |  |
| Street Vending |  |  | 23.90** |
| Working | 75 | 33.6 |  |
| Not Working | 148 | 66.4 |  |
| Non-coffee Wage Work |  |  | 99.56** |
| Working | 37 | 16.6 |  |
| Not Working | 186 | 83.4 |  |

$$
* * p<.001, d f=\text { degrees of freedom }
$$

Accordingly, there was a statistically significant difference between the observed and expected frequencies in trading non-coffee produce and animals ( $\chi 2=15.61, \mathrm{df}=1, \mathrm{p} \times .001$ ), producing and selling artistic or craft work ( $\chi 2=91.70, \mathrm{df}=1, \mathrm{p} \times .001$ ), semi-skilled technical work ( $\chi 2=94.28$, $\mathrm{df}=1, \mathrm{p}<.001)$, casual work $(\chi 2=21.35, \mathrm{df}=1, \mathrm{p}<.001)$, street vending $(\chi 2=23.90, \mathrm{df}=1$, $\mathrm{p}<.001$ ), and in non-coffee wage work ( $\chi 2=99.56, \mathrm{df}=1, \mathrm{p}<.001$ ). However, from table 4 it is evident that the observed and expected frequency of children's participation in small scale coffee trading or business as well as in paid work in coffee picking and processing is not significant. Results of the goodness-of-fit test indicate that the proportion of students who combine small scale coffee trading or business as well as in paid work in coffee picking and processing are
equally distributed; frequencies are not statistically different from what would be expected by chance.

## Regularity and intensity of children's work combined with school learning

Since the incidence of participation in various types of work activities does not give a complete picture of the extent of children's work pattern, the study has attempted to collect data on the regularity and intensity of children's work combined with school learning. Data on regularity of children's work was recorded in terms of average number of days worked per year in the past academic year. In one item stated in the student questionnaire participants were asked to report the average number of days they had spent working per week in the past 10 school months in all type of work they combined with school responsibilities. The response options for this item ranged from (1) zero day per week, (2) one day per week, (3) two days per week, (4) three days per week, (5) four days per week, (6) five days per week, (7) six days per week, and (8) seven days per week. Higher score in the item indicated high number of days worked per week in the past school year. The descriptive statistics for average number of days worked per year in the past academic year is shown in figure 1.

Measures of central tendency were computed to summarize the data for the regularity of children's work combined with school learning. Measures of dispersion were computed to understand the variability of scores for the regularity children's work combined with school learning. The following are the results of this analysis; $\mathrm{N}=220, \mathrm{M}=3.70, \mathrm{SD}=1.12$. The findings imply that; on the average, children spend between two and three days per week

Figure 4.1: Graph showing descriptive statistics for average number of days worked per year in the past academic year


Similarly, data on the intensity of children's work was recorded in terms of average number of hours worked per day in a typical day during the past school year. Another item stated in the student questionnaire asked participants to estimate the average number of hours per day they worked in a typical school day in the past 10 school months using an eight-pint response scale ranging from "zero hour per day" (1) to seven or more hours of work per day (8). Higher score in the item indicated high number hours worked per day in the past school year. On the average students reported that they worked more than 2 days per week and 2 hours per day.

Figure 4.2: Graph showing descriptive statistics for average number of hours worked per day in the past academic year


As it is shown in figure 2 measures of central tendency and dispersion were computed to summarize the data and understand the variability of scores for the intensity of children's work combined with school learning. The following are the results of this analysis; $\mathrm{N}=222, \mathrm{M}=3.70$, $\mathrm{SD}=0.94$, which suggests that children spend between two and three hours per day.

A one-sample t -test was computed to see if the mean score of children's workload is different from the hypothesized mean of 4.5 days per week and 4.5 hours per day spent working respectively. The value 4.5 , the midpoint of the 8 -point scale, is considered as a hypothesized mean against which the mean ratings of students are checked for their significance using the one sample t-test. This means if the mean rating of students is significantly higher than the hypothesized mean (the midpoint of the scale), then we assume that time spent by the students in work activities is high and vice versa. Table 5 presents the results one-sample t-test and descriptive Statistics for regularity and the intensity of children's work patterns.

Table 5: One-sample t-test and Descriptive Statistics for regularity and the intensity of children's work

| Variables | M | SD | N | Comparison <br> Value | $95 \%$ CI for Mean <br> Difference | T | $d f$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Average Days Worked <br> per week in the past 10 <br> school months | 3.70 | 1.12 | 220 | 4.5 | $-.94,-.64$ | $-10.56 * 219$ |  |
| Average Hours Worked <br> per day in the past 10 <br> school months | 3.70 | .94 | 222 | 4.5 | $-.79,-.91$ | $-12.65^{*} 221$ |  |

[^0]A one sample $t$ test showed that the difference in average days worked per week in the past 10 school months between the current sample ( $\mathrm{N}=220, \mathrm{M}=3.70, \mathrm{SD}=1.12$ ) and the hypothesized value (4.5) were statistically significant, $\mathrm{t}(219)=-10.56, \mathrm{p}<.01$ ). The test result of the one sample $t$ test also showed that there is a statistically significant difference in average number of hours worked per day in the past 10 school months between the current sample ( $\mathrm{N}=222$, $\mathrm{M}=3.70, \mathrm{SD}=0.94$ ) and the hypothesized value (4.5) were statistically significant, $\mathrm{t}(221)=-$ $12.65, \mathrm{p}<.01$ ). In other words, the number of hours spent working per day as well as the number of days worked per week in the past 10 school months in this sample were significantly different from the hypothesized value of 4.5 days worked per week and 4.5 hours worked per day respectively.

## Regularity and intensity of children's work in coffee and non-coffee picking school days

Two other questions were asked to examine regularity and intensity of children's work pattern in coffee picking school days (defined as the first four school months from September to December that coincide with coffee harvest work season) and in non-coffee picking school days (defined as the last four school months from February to June that coincide with non-coffee harvest agricultural work season in study area). In addition, a paired sample t-test was computed to
determine whether the regularity (number of days spent working per week) and intensity (the number of hours spent working per day) of children's work during coffee and non-coffee picking school days differ. The table below presents the findings

Table 6: Descriptive Statistics and t-test Results for Regularity and Intensity of work during coffee and non-coffee pickingschool days

| Children's workload | Regularity and intensity of work during coffee and noncoffee pickingschool days |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Types of school days worked | M | SD | T | Df |
| Regularity of work (days spent working per week) | Coffee-picking school days | 4.49 | 1.46 | 18.68** | 218 |
|  | Non-coffee picking school days | 2.92 | 1.07 |  |  |
| Intensity of work (hours spent working per day) | Coffee-picking school days | 4.57 | 1.21 | 23.9 ** | 220 |
|  | Non-coffee picking school days | 2.85 | . 91 |  |  |

** $\mathrm{p}<.001$
Results of paired-samples t-test showed that there was a significant difference between the scores for regularity of children's work in coffee picking school days ( $\mathrm{M}=4.49, \mathrm{SD}=1.46$ ) and in the scores for regularity of children's work in non-coffee picking school days ( $\mathrm{M}=2.92, \mathrm{SD}=1.07$ $, \mathrm{t}(218)=18.68, \mathrm{p}<.001)$ ). Likewise, results of paired-samples t -test indicated that hours spent working per day were significantly higher in coffee picking school days $(M=4.57, S D=1.21)$ than in non-coffee picking school days $(\mathrm{M}=2.92, \mathrm{SD}=1.07, \mathrm{t}(220)=23.3, \mathrm{p}<.001$. These results suggest that both the regularity and the intensity of children's work pattern appears to be higher in coffee picking school days (defined as the first four school months from September to December that coincide with coffee harvest work season) than in the non-coffee picking school days (defined as the last four school months from February to June that coincide with non-coffee harvest agricultural work season in study area).
4.2.3. Children's school attendance in coffee and non-coffee picking school days School attendance record was determined by asking the students to mark the total number of days they were absent from classes over the last school year. One item in the questionnaire asked students to estimate and mark the total number of days they were absent from school over the
last school year. There were seven possible answers to this item: (1) Never or 0 days per year, (2) Between 1-3 days per year, (3) Between 4-6 days per year ,(4) Between 7-9 days per year , (5) Between 10-12 days per year, (6) Between 13-15 days per year, and (7) More that 15 days or 2 weeks per year. Accordingly, the students' high score on the scale indicated low or sporadic school attendance record and low or zero score on the scale meant better or regular school attendance record. The figure below shows the mean number of days students were absent in the past school year

Figure 4.3: Average days of school absence in the past school year


Measures of central tendency were computed to summarize the data for the number of days they were absent from classes over the last school year. Measures of dispersion were computed to understand the variability of scores for number of days they were absent from classes over the last school year. The following are the results of this analysis; $\mathrm{N}=221, \mathrm{M}=3.79, \mathrm{SD}=1.63$. The findings imply that; on the average, children are absent for more than 4-6 days per year and less than 7-9 days per year.

In addition, a one sample t-test was conducted to assess if the mean attendance rate is representative of the student population with score of 4 as hypothetical mean score assumed for
population. Results of the one sample $t$ test showed that the difference in mean attendance scores between the current sample ( $\mathrm{N}=221, \mathrm{M}=3.79, \mathrm{SD}=1.63$ ) and the hypothesized value (4) were not statistically significant, $\mathrm{t}(220)=-1.94, \mathrm{p}=.053,95 \%$ CI $[-.43, .00]$. The findings are presented in the following table.

Table 7: One-sample t-test and Descriptive Statistics for average number of days of school absence per year in the 2017 school year (or in 2007 according to Ethiopian calendar)

| Variables | M | SD | N | Comparison <br> Value | 95\% CI for Mean <br> Difference | T | $d f$ |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Average Number of days <br> of school absence per <br> year in the 2007 academic | 3.79 | 1.63 | 221 | 4 | $-.43, .003$ | -1.94 | 220 |  |
| year |  |  |  |  |  |  |  |  |

$\mathrm{p}<.001$
Finally, a paired sample t-test was also computed to determine whether the children's school attendance dates per school terms i.e., during coffee and non-coffee picking school days differ. the school attendance rates that the students have registered in coffee and non-coffee picking school terms and days were measured using two items designed separately for each time periods. The school attendance rates that the students have registered in coffee and non-coffee picking school terms and days were measured using two items designed separately for each time periods. In each item, students were required to report on a 5-point Likert-type scale ranging from (1) "One day per week",(2) "One day per month ", (3) "One day per quarter(two months),"(4) " One day per three months", and to (5) "One day per semester". Low score in these items indicated low or poor school attendance record while high score in the two items meant high or regular school attendance registered by the respondents in coffee and non-coffee picking school terms and seasons respectively. The findings are presented in the table below.

Results of paired-samples t-test indicated that rates of student absenteeism were significantly higher in coffee picking school days $(M=2.00, S D=1.13)$ than in non-coffee picking school days $(\mathrm{M}=3.17, \mathrm{SD}=1.01, \mathrm{t}(217)=-13.82, \mathrm{p}<.001$. These results suggest that children maintain low rate of school attendance or high rates of absenteeism in coffee picking school days (September to December than in the non-coffee picking school days (February to June).

Table 8: Descriptive Statistics and t-test Results for Attendance pattern in coffee and non-coffee picking school terms or days

| Outcome | Coffee pecking school days |  | Non-coffee pecking school days |  | N | 95\% CI for Mean <br> Difference | T | Df |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | M | SD | M | SD |  |  |  |  |
| Absence/ Attendance | 2.00 | 1.13 | 3.17 | 1.10 | 218 | $-1.33,-1.00$ | -13.82** | 217 |

4.2.4. Relationship between the regularity and intensity of children's work and school attendance

Pearson correlation coefficient was run to examine the relationships between (a) the regularity (number of days spent working per week) as well as (b) the intensity (the number of hours spent working per day) of children's work and average school attendance rates registered per year. The results are presented in Table 9 below.

Table 9: Person correlation of major study variables

|  | Variables | 1 | 2 | 3 |
| :--- | :--- | :--- | :--- | :--- |
| 1 | Average Number of days of school absence per year <br> in the 2007 academic year | - | $0.53^{* *}$ | $0.39^{* *}$ |
| 2 | Average Days Worked per week in the past 10 <br> school months | - | $0.48^{* *}$ |  |
| 3 | Average Hours Worked per day in the past 10 school <br> months | - |  |  |

**. Correlation is significant at the 0.01 level (2-tailed).
The results reveal that the both the average days worked per week and the average hours worked per day in the past school year were significantly associated with the reported rates of school attendance. Specifically, There was a significant positive correlation between average number of
days of school absence per year in the 2007 academic year and average days worked per week in the past 10 school months, $\mathrm{r}=.531, \mathrm{p}<.001$. In other words, children who reported that they worked for higher number of days per week registered lower school attendance rates while children who worked for less number of days per week registered lower school attendance. Furthermore, results of Pearson correlation coefficient reveal that average number of days of school absence per year in the 2007 academic year was moderately correlated with the average hours worked per day in the past 10 school months, $\mathrm{r}=.394$, $\mathrm{p}<.001$. Students who worked fewer hours per day registered better school attendance rates while students who worked longer hours per day maintained poor school attendance record in past school year.
4.2.5. Gender difference in children's domestic work and school attendance

For the purpose of this study, data analysis on gender difference in the incidence of domestic work is considered important because previous studies suggest that domestic work activities usually involve more girls than boys in the Ethiopian societies (Tassew Woldehanna and Nicola Jones, 2009; CSA, 2001, and Ylew 2002; Haile and Haile ,2012 and Woldehanna et al. 2011). Hence, the study attempted to examine gender difference in children's domestic work and in school attendance. A chi-square test of independence was performed to examine the association between gender and participation in domestic work. Table 10 presents the descriptive statistics and the results of the chi-square test of independence

Table 10: The chi-square test of association: Gender and domestic work status

| Domestic work | Gender |  |
| :--- | :--- | :--- |
| Status | Male | Female |
| Working |  |  |
| Not working | $120(60 \%)$ |  |

Note. $\chi 2=3.813, \mathrm{df}=1, \mathrm{p}=.051$ Numbers in parentheses indicate column percentages.

The test of association results indicates that engagement in domestic work does not appear to be statistically associated with gender of the students. There is no evidence to support relationship between gender and participation in domestic work, $\chi 2(1)=3.813, \mathrm{p}=.051)$. These results
suggest that the rate of participation in domestic work activities is similar for male and female children.

In addition, results of the independent sample $t$ test showed that the difference in attendance scores between male children $(\mathrm{n}=133, \mathrm{M}=3.85, \mathrm{SD}=1.67)$ and the female participants ( $\mathrm{n}=$ $88, \mathrm{M}=3.61, \mathrm{SD}=1.55$ ) were not statistically significant, $\mathrm{t}(214)=-1.035, \mathrm{p}=.0 .302,95 \% \mathrm{CI}$ [-.021, 0.68]. The results are summarized in the following table.

Table 11: Descriptive Statistics and independent sample t- test for gender and school attendance

|  | Gender |  |  | Female |  |  | 95\% CI for <br> Mean Difference |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Male |  |  |  |  |  |  |  |  |
|  | M | SD | N | M | SD | n |  | t | df |
| School <br> Attendance. | 3.85 | 1.67 | 133 | 3.61 | 1.55 | 88 | -0.21,0.68 | 1.03 | 214 |

### 4.3. Qualitative Findings

This section presents the results of the qualitative data analysis. It is divided into three subsections. The first section provides the characteristics of the participants in the qualitative part of the study. The second examines children's own experiences of work and school attendance during coffee and non-coffee picking school days. The final section presents school teachers and principals' perspectives on children's work burden and school attendance patterns during coffee and non-coffee picking school terms.

### 4.3.1. Participant characteristics

As outlined in the methodology chapter, qualitative data were gathered from two sources: 3 students, two teachers one school principal, and one cluster school supervisor. This section provides an overview of the demographics of participants in this study. Pseudonyms were used to protect the confidentiality and anonymity of participants.

Table 12: Characteristics of participants in the qualitative phase of the study

| Participants | Gender | Age | Grade |
| :--- | :--- | :--- | :--- |
| Teachers |  |  |  |
| Teacher A | Male | 49 | ----- |
| Teacher B | Female | 45 | ----- |
| Head teacher | Male |  | ----- |
| Cluster supervisor | Male | 51 | ----- |
| Students | Male | 15 | 8 |
| Student A | Female | 15 | 7 |
| Student B | Male | 13 | 6 |
| Student C |  |  |  |

4.3.2. Children's Perspectives on Work and school attendance in coffee and non-coffee picking school days

This section presents the findings from the children's interviewees who combine work and school. It is organized into three parts. The first section provides evidence of children's experiences of work combined with school learning including the types of work children have combined with school, their perception about the intensity of work performed. The second part is devoted for presenting findings about children's perspectives on the effect that the practice of combining work with school has on their school attendance patterns in coffee and non-coffee picking school days in particular.

## Type and intensity of work combined with schooling

The children were asked to talk about the type and the intensity of work they performed and how their work patterns are similar or different in coffee and non-coffee picking school days. Analysis of interview data revealed three different categories of work undertaken by students, which were often combined with school. Specifically, informants have reported that they undertook household work, work in their family farm, and off-farm paid work activities.

## Household Work

All of those interviewed children reported that they combine school with various types of household work activities. However, to some extent, the type of domestic work activities vary between the girl and the two boys interviewed. For example, Student B , who is a girl-child interviewed, has stated that she combines school with various types of household work such as fetching water, washing the dishes and clothes, cooking and looking after smaller siblings. Describing her participation in household work, she stated that
"I help my mother by doing many types of household work. I fetch drinking water from the water well which is located close to our house. I look after my younger sister while my mother is doing house work or going somewhere. Occasionally, I wash clothes, prepare coffee, cook food when my mother is not around. I am also expected to clean our house and wash dishes on a daily basis" (Interview data Student B) .

Boys also noted their engagement in household work activities, but to a lesser extent than the girl informant (or Student B). For example, student A has stated that he has participated mainly in fetching water and gathering fire wood.
"Our mother is responsible for doing most of the household chores. I don't do much household work because I have two older sisters and they are responsible for assisting my mother in household work. But I am always expected to ensure that two things are always available in our house. One is drinking water and the other is firewood. So I am always engaged in fetching water and gathering fire wood" (Interview data student A)

Another student (a boy informant) reported that he combines school with various household chores.
"My younger sister and I live with our grandparents. I help my grandparents with different types of household work like cleaning, washing clothes, fetching water, and collecting firewood. I think the reason why I am living with my grandparents is because my parents wanted me to assist them with work, including household work. My sister is 4 years old and she is too young to do these types of work. Besides my grandparents are old now and I feel that I have the obligation to assist and care for them" (Interview data Student C)

## Farm work

Like the household work activities, the type and extent of engagement in farm work seems to be structured according to gender. Whereas the boys were involved in farming activities such as planting, harvesting, and other farm work, the girls informant reported that she assist her mother in processing Enset (false banana, which is a staple food in the study area) in their garden. "I don't do farming work much. I am more responsible for assisting my mother in household work. But sometimes I help my mother in processing Enset in our garden. It is a very difficult job." (Interview data, student B)

Similarly one boy informant responded that "I do all types of work on our farm as long as my grandparents want my assistance. I am particularly responsible for carrying and feeding our cattle." (Interview data, student C) In addition another boy respondent has also described his participation in farm work in addition to his household work responsibilities
"Yes I am also engaged in farm work. After all, farming is our occupation. We produce different kinds of crops including coffee. In my family everyone is required to contribute to farm work. Off course, my father is mainly responsible for most of the farm work. As a child, I am expected to assist my father. I always work on the farm with him at weekends, during holidays and after school hours when he is preparing land, planting, harvesting coffee and other crops grown in our farm." (Interview data, Student A)

## Off-farm work

Informants also identified a variety of off-farm work they combine with school learning. The following quotes are statement describing their involvement in off-farm work activities
"Many children in our village do not want to ask money from their families because they are encouraged by their families to be independent financially. I would say that my father is different in this regard because he wants me to concentrate more on my school work. But I don't want to bother him financially because I can get the money myself by working in coffee processing firms during coffee harvest season (Interview data, student A).
"Sometimes, especially on weekends I go to the street to sell avocado, pineapple and banana. I also accompany my mother to the local market when she buy and sell coffee." (Interview data, student B)
"My grandparents do not force me to do paid work in coffee picking. It is my choice. I want to get money so that I will be able to buy my own clothes, shoes and exercise books." (Interview data, student C)

The qualitative study also asked respondents for their views on the number of hours and days they usually spend working. The respondents have reported that their household work irresponsibility is less time consuming compared to their farm and off-farm work responsibilities though it is a regular work. For example, the girl reported about her work load that
"It depends on the type of work I am doing. I do the household work every day, and I work for three hours per day on the average. I also spend the same amount of time when I assist my mother with the Enset processing work, but this is just for one or two days per week. It takes me a bit longer to complete my market work responsibility though I am doing this for two or three days per week"( Interview data , Student B)

Similarly, another boy reported:
'I fetch water every day, but I collect firewood may be once in two or three days, so my household work responsibility doesn't take too much time. But on our farm, I work from Monday to Saturday for three to four hours with my father. I go to church on Sundays so I am free the whole day. I work seven to eight hours a day when I am engaged in paid work in one of the coffee processing firms found in our village"( Interview data, Student A).

Student C has a similar account:
"The amount of time I spend in household work is less than the time I spend when I am working in picking coffee. On the average, I spend some 4 hours per day on both my household and farm work responsibilities. But when I am picking coffee from our own farm for sale or when I am working for pay in somebody's farm I spend like seven or
eight hours per day, but I do these types of work only during the coffee harvest season" "( Interview data , Student C).

## Effect of children's work on school attendance in coffee and non-coffee picking school days

Finally, informants were asked to describe the effect that their work pattern has on their school attendance in coffee and non-coffee picking school days when school is in session. Accordingly, all respondents have admitted to skipping more school-days during coffee picking school days. Student A, who is a boy, explained his situation as follows:
"I like school and I really want to attend school every school-day. However, during coffee picking season, I miss school at least three or four days per week because I rely on this season to work and get money for my school and other expenses I need for the whole year. But I attend school on a regular basis during other time of the school year. " (Interview data Student A)

The girl informant has also described the connection between her household work and school attendance patterns in coffee and non-coffee picking school days
"I do not want to be absent from school, but sometimes during coffee harvest season, I find it difficult to maintain regular school attendance, especially on the two weekly market days, i.e., on Tuesdays and Thursdays. During the coffee picking season, I am the only child who stays at home to guard the house and to undertake household work activities while my mother and other members of our family are busy harvesting, selling or buying coffee. As a result I miss more school-days or at least two days per week in coffee than in the non-coffee picking school days because of my household work responsibilities". (Interview data Student B)

Similarly, one of the boy informant has explained how his working and schooling patterns differs between coffee and non-coffee picking seasons or school days
"With the onset of coffee picking season, I and many of my friends become happy because this is the only time of the year during which we get money. Even before our families start the harvest work, we steal coffee from our own farms and sell it in the local market without the knowledge of our parents... During coffee picking season, many of us
do not have interest to go to school and we can be absent from school for more than two months consecutively until the coffee season is over" (Interview data Student C).
4.3.3. Teacher's Perspectives on children's Work and school attendance in coffee and non-coffee picking school days

One of the objectives in this interview was to uncover the meanings that teachers and school principals attach to children and childhood periods. To that end, I asked my participants what view they hold about children and childhood periods. They define children and childhood periods in terms of age, marriage act and engagement in income generation work. Regarding this, teacher A has stated that
"If a person is under the age of 18, the Ethiopian law sees that person as a child. However, somebody who is married under the age of 18 is not considered as a child in our community. Also if you are under 18 and you are engaged in income generating work with adults, many people treat you as an adult. Therefore you have to consider age, marriage act, and the person's role in the family and community "(Interview Data, Teacher A)

Another teacher (Teacher B) also commented that age is not the only defining factor.
"Marriage act is also important to regard a person as a child or as an adult. In many Sidama communities a married person who is under 18 years of age is seen as an adult. The role of the person in the community is also an important consideration. In our community, a boy or a girl at 15 can take some adult responsibilities such as working and taking care of family members which qualify him or her as a fully grown adult member of the community" This applies to boys and girls." "(Interview Data, Teacher B)

In terms of what makes a child "a good or a bad child" in their communities, the female teacher see children as naturally good while the school principal views children as both good and bad depending on the type of care and treatment they receive .
"Children are naturally good. Having a child is a sign of God's Blessing. I love children. What made me choose teaching profession as my career is the love I have for children.

You know I am a mother of seven children; two of them are girls, while the rest are boys. I wish I had more. They are my life". (Teacher B)

On the contrary, the school principal describes children as a "white sheet of paper. You can make them good or bad depending on how they are treated in their family." "(Interview Data, Head Teacher).
"What should be the proper place of children?" was the third question I asked my participant. Responding to this, the participants seem to recognize two important places for children in the community to spend their childhood periods: the school and the work place. It is surprising to notice that none of my interviewees mentioned about the need for children to enjoy their leisure time and be in a play ground. They hold the view that parent's economic condition determines the decision whether to send their children to school or to work place. Explaining this, he commented that
"...this type of decision is determined by economic necessity. Many people in Sidama decide the proper place of children based on their economic needs. If the economic needs of the parents and the child are not met, the work place is appropriate for the child and his parents. However, if they have modest income and the means to survive, then the proper place of the child should be in school. " Interview Data, Head Teacher).

## Perspectives on children's work and school attendance patterns

Attempt was also made to see whether combining work and school responsibly is a common practice among school-going children in the Sidama Zone from the perspectives of school teachers. Accordingly, all of the respondents have indicated that the practice is widespread among students at primary and secondary school levels. They were very keen to discuss the working and schooling situations of children in the community. Teacher A has specifically noted that
"In Sidama work is part of children's lives. A student who does not assist his or her parent with work is considered as a spoiled child. In addition to helping parents, work is also beneficial for the working child. Children can gain many types of knowledge by doing domestic work activities such as cleaning and washing with the aim to assist their
parents and generate income. They can also earn income to buy their clothing and to pay for school expenses. This practice is highly encouraged in our community" (Interview Data, Teacher A).

While acknowledging the educational value of children's engagement in different forms of work activities, the head teacher is very critical of the child labor problem prevalent within the Sidama coffee growing community. Although he did not mention the magnitude of the problem in statistical terms, he believes that significant number of school-going and out-of school children participate in child labor activities. He further added that "in Sidama child labor is found in farming activities, street vending, selling clothes, and in many other businesses". His statement confirms that the universal access to primary school has not prevented children from participating in hazardous activities. He also distinguishes child labor from child work. In one of his statements he mentions "...if the child is getting money we can say that it is child labor".

Furthermore, my interviewees have stated that student absenteeism is another challenge the school is currently facing, in addition to child labor. Commenting on the situation of school attendance and student absenteeism one interviewee noted that
"In many parts of Sidama, children attend school sporadically due to a number of reasons. Some students are absent due to sickness. Others are absent because of work pressure. Still there are a lot of students who are frequently absent partly because the long distance between their home and school and partly due to safety concerns" (Interview Data, Teacher A).

Moreover, interviewees have identified the onset of coffee picking season as a major reason for the problem of student absence in their school. Teacher B, for instance, has described the situation in her statement when she stated that
"At the beginning of each school year many children register to enroll in our school. They even attend class on a regular basis. However, this situation begins to change with the onset of coffee picking season. During coffee harvest season, the majorities of students who are attending my class go to work to generate income instead of coming to class. Out of the 60 students registered in my class, only 10-15 students show up in my class during first semester. At the end of the harvest season, some of them return to class
after two months of absence while a few students drop out from the school altogether". (Interview Data, Teacher B).

## Perspectives on the effect of combining work with school on school attendance

Finally, in this study has investigated the extent to which work which is combined with school attendance is a cause for children to be absent from school, to come late to school and to perform well or perform poorly in their school. Accordingly, my conversation with the interviewees suggests the difficulty of attributing poor school attendance to the problem of child work and child labor alone. This is evident from my interview data obtained from school principal who stated that
"It is clear that engagement in work requires time. But many working children have ways to compensate the time they have lost in working. In some cases, they even perform better than students who do not work at all. I have seen this myself. I know a student who used to earn a living by working as a shoe shiner. He did not have the habit of attending school on regular basis. Instead he preferred to ask his friends, copy notes and learn by him. He always made sure that he found time to learn by himself". Because of his hard work, he scored 4.00 points in his school leaving certificate examination. Currently he is first year student at Hawassa University. (Interview Data, Teacher B).

This statement implies that working students can compensate the loss of time spent in work by finding time for their school work provided that they have motivation for learning. For instance, one of the teacher interviewee has stated that
"Most students in Sidama who do not have work responsibilities lack the motivation needed to devote their time for school learning. Due to this, some students even prefer work over schooling because schooling is boring for them. You can notice the lack of interest in school learning among our students when the last bell of the school is ringing. Most children express their happiness when the school day is over. They feel like a prisoner released from jail. Our Schools are seen by our many students as prisons" (Interview Data, Teacher C). .

In situation like this, motivation of the student appears to explain the incidence of student absenteeism more than the phenomenon of child work. However, the adverse impact of work on patterns of children's school attendance seems to depend on geographical location and where children are residing. Acknowledging this situation, one of my interviewee confirmed that the incidence of absenteeism due to seasonal child labor is highest in areas where there is intense coffee production. The following statement provides evidence of this situation
"In Ethiopia the impact of child work and child labor on school attendance depends on the type of agricultural season. In coffee growing communities student absence is due to seasonal child labor. Many children who reside in and around coffee growing areas do not attend school because they are busy in pecking coffee. A lot of children who reside in areas where there is intense coffee growing communities attend school sporadically because they are engaged in work. Sometimes you can find only 10 students out of 45 students in a class during coffee harvest season. (Interview Data, Teacher A).

## Chapter 5: Discussion

### 5.1. Introduction

The purpose of this concurrent triangulation mixed-method design was to determine the patterns of children's work combined with schooling and its association with school attendance in coffee and non-coffee picking school days in coffee livelihood Zones in Sidama Zone, Southern Ethiopia. The previous chapter has presented findings obtained utilizing both quantitative and qualitative data. The purpose of this chapter is to integrate and discuss these findings and relate them to prior research and theories dealing with child work and schooling. The chapter is organized into three sections. There are three major issues discussed in the three different sections of the chapter: (a) extent of children's work combined with school learning in coffee livelihood Zones in Sidama, (b) children's work and school attendance patterns in coffee and non-coffee school days, and (c) relationships between children's work and school attendance patterns.

### 5.2. Extent of children's work combined with school in Sidama coffee livelihood Zones

One of the objectives of this study was to examine the extent of children's work combined with school learning among primary school children in coffee livelihood Zones of Sidama Zone, Southern Ethiopia. In order to collect data on, and obtain a clear picture of children's work pattern combined with school learning, a broad definition of work was used and this included: farm work, household or domestic work and off-farm work. The results from quantitative and qualitative data suggest that combining work with school attendance is a common practice among primary school students in coffee livelihood Zones in Sidama.

Quantitatively, the study found that domestic work is the most prevalent type of work combined with school learning among students residing in coffee livelihood Zones of the Sidama region. The study defined domestic work as unpaid household work including chores such as house cleaning washing clothes, cooking, fetching water, collecting firewood, caring for siblings /childcare or the sick or elderly people in own home, shopping, going to mill and other types of unpaid household services. Significant proportions (91.0\%) of the respondents were engaged in domestic work or household chores. Similarly, analysis of student interview data presented in the findings chapter confirmed that students undertook a variety of, domestic work activities. All
students interviewed in the qualitative part of the study have reported that they are expected to combine wide range of domestic work activities while studying.

The quantitative and qualitative findings diverge, however, with regard to the issue of gender differences in domestic work participation. While the results of the chi-square test suggested no evidence of association between gender and participation in domestic work ( $\chi 2(1)=3.813, \mathrm{p}=$ .051), this finding was not substantiated by the interview data. For instance, when they described their experience of domestic work, all of those interviewed children refereed to their mothers and sisters instead of their fathers or brothers: I help my mother by doing many types of household work( Interview date, Student B), or as another boy-child has stated 'Our mother is responsible for doing most of the household chores. I don't do much household work because I have two older sisters and they are responsible for assisting my mother in household work" (Interview date, Student A). The gendered nature of domestic work is implicitly reflected in these quoted statements.

The quantitative finding of no association between gender and incidence of domestic work obtained in this investigation contradicts the findings of previous studies which suggested that girls assume more domestic chores than boys (see, for example, Woldehanna Tassew and Nicola Jones, 2009; CSA, 2002; Assaad et al., 2010; Alvi and Seife ,2011; Haile and Haile ,2012 and Woldehanna et al. 2011). The inconsistent findings in this study can be explained in terms of the limitations associated with the structured nature of student questionnaire used in the study. As it is reported in the methodology chapter, incidence of domestic work was measured with a single question that grouped together chores undertaken both inside the household (house cleaning, washing clothes, cooking, caring for siblings /childcare or the sick or elderly people in own home) and those undertaken outside the household (fetching water, collecting firewood shopping, going to mill and other types of unpaid household services). It is interesting to not from the qualitative findings that it is only the boys informant who reported engagement in former while the girl-child informant mentioned her engagement only in the later type of domestic work.

Moreover, the findings show that the farm work is the second most prevalent type of work combined with school learning among students in coffee livelihood zones in Sidama. As shown in the quantitative data analysis, children's participation rates in farm work was $80.3 \%$ in picking
and processing coffee to $72.6 \%$ in animal care and tending work, $66.4 \%$ in harvesting and processing non-coffee crops $63.7 \%$ in non-harvest farm work activities. The quantitative data also suggest that more than half ( $57.8 \%$ ) were engaged in small scale coffee trading business and nearly one third of the students report having worked in a range of off-farm work activities that might constitute a child labor. Interview data confirmed that students undertook a variety of farm and off-farm work activities for the purpose of market exchange, as well as subsistence work in the their family farm. These results appear to support what others have already asserted about the practice of combining work with schooling in Ethiopia. For instance, the 2002 stand-alone national child labor survey in Ethiopia revealed that work pressures were a widespread reality not only for about half of the Ethiopian children aged 5-17 years who were not enrolled in schools, but also for 34 percent of children who have entered the education system (CSA, 2002). Among the school children aged 5-17 years, only 3.9 percent are studying full time without combining school and work (CSA, 2002).

In the current study, farm work was defined as unpaid agricultural work activity undertaken in the family farm or business while off-farm work was defined as both agricultural and nonagricultural work activities undertaken inside or outside of the child's home for the purpose of generating income. Diallo, Y, F. Hagemann, A. Etienne, Y. Gurbuzer and F Mehran (2010) have noted that these types of children's work constitute child labour under the general production boundary of the System of National Accounts (SNA) which includes all types of paid productive activity as well as certain types of non-paid productive activity. The findings of this study suggest that between 80.3 to $57.8 \%$ of school-going children in Sidama coffee livelihood zone are engaged in productive and economic activities that constitute child labor consistent with international standard. This is unfortunate in view of the commitment made by the Ethiopian government to raise school attendance and reduce child labor.

The government has endorsed various international legal instruments and has ratified the UN Convention on the Rights of the Child (UNCRC) ratified in 1991(CSA, 2002). In addition, Article 36 of the Constitution of Federal Democratic Republic of Ethiopian stipulates that children should not be subjected to activities that compromise their education. Moreover, the Ethiopia Labour Law proclamation No. 377/2003 prohibits the employment of people aged under fourteen (a modification of the internationally accepted work age of 15, or 18 for
hazardous work [International Labour Organisation Convention No. 138). As the findings of these study shows, however, even the school children in one of its intense coffee growing region continue to engage work activities that constitute child labor.

Overall, the results of this study regarding children's work pattern seem to supports the sociocultural theoretical perspectives in many ways. Firstly, researchers working from this perspective acknowledge that children's work and schooling are not necessarily irreconcilable (see, for example, Boyden, 1994; Bourdiloun, 2001; Abebe, 2007 and Adem, 2009). The findings also shows the overwhelming majority of children manage to combine domestic, farm and off-farm work with schooling. Secondly, within the socio-cultural theoretical perspectives, it is argued that children's participation in economic and social life is an important part of child development and socialization. This is consistent with the qualitative data obtained from one teacher respondent: "In Sidama work is part of children's lives. A student who does not assist his or her parent with work is considered as a spoiled child..." (Interview Data, Teacher A) Third, sociocultural theorists suggest that work can facilitate school attendance by generating income which is often used to cover schooling expenses. As shown in the findings chapter, children interviewed in the present study have also reported that they performed paid work on their own initiatives because they wanted to cover for their schooling expenses.

### 5.3. Children's work and school attendance patterns in coffee and non-coffee school days

Another key element of this study was to determine the differences in children's work and school attendance patterns during coffee and non-coffee picking school days. Accordingly, comparison of quantitative and qualitative findings suggests convergence. For example, with regard to the extent of children's work, a significant difference was observed between the scores for regularity of children's work in coffee picking school days ( $\mathrm{M}=4.49, \mathrm{SD}=1.46$ ) and in the scores for regularity of children's work in non-coffee picking school days $(\mathrm{M}=2.92, \mathrm{SD}=1.07, \mathrm{t}(218)=$ 18.68, $\mathrm{p}<.001$ )). Likewise, as reported in the findings chapter, the results of paired-samples t test indicated that hours spent working per day were significantly higher in coffee picking school days $(M=4.57, S D=1.21)$ than in non-coffee picking school days $(M=2.92, S D=1.07, t(220)=$ 23.3, $\mathrm{p}<.001$. Similarly, the qualitative findings suggested that children tended to work longer hours and more number of days per week during coffee picking school days than non-coffee
picking school days. Both teachers and students who participated in the interviews have identified coffee picking season or school term as the most labour demanding time the year in the study area.

The longer hours worked per day and the high number of days worked per week during coffee picking school days is likely related to farm labor shortage at that time. Canwat, (2012) has analysed seasonal variation in agricultural labour demand in Kenya and concluded that participation of primary school-going children in farm activities is the highest in seasonal agricultural work such as planting and harvesting (Canwat, 2012). For most children living in coffee producing areas, the coffee picking season is the greatest time waster (Mureithi L, 2008,). In the coffee livelihood Zones in Sidama Zone, where this study was conducted, the coffee picking season is between September-January (USAID, 2005). In this season, children including those who attending school are often needed by their families for labor purposes, especially during the peak harvesting seasons. The observed participation rate of $80.3 \%$ students in coffee picking and processing work and $57.8 \%$ in small scale coffee trading business work confirms the seasonality of children's work combined with school learning.

Moreover, both the quantitative and qualitative findings suggest the presence of seasonal variation in school attendance rates. As shown in the previous chapter, the results of pairedsamples $t$-test indicated that rates of student absenteeism were significantly higher in coffee picking school days $(M=2.00, S D=1.13)$ than in non-coffee picking school days $(M=3.17$, $\mathrm{SD}=1.01, \mathrm{t}(217)=-13.82, \mathrm{p}<.001$. These results suggest that children maintain low rate of school attendance or high rates of absenteeism in coffee picking school days (September to December) than in the non-coffee picking school days (February to June). The high incidence in during coffee picking school days (September to December) is likely related to the high rate of seasonal farm and off-farm work related to coffee production agricultural work, especially in coffee picking and processing work and in small scale coffee trading business work. In other words the poor school attendance during the coffee picking school days may be partly because many students are involved in seasonal farm and off-farm work during these months.

Similarly, the seasonal nature of children's work and school attendance patterns is confirmed in the qualitative findings. During the interview, all students have admitted that their school attendance decreased in coffee picking school days because the time they spent on work
increased during this season. One student has stated that "...during coffee picking season, I miss school at least three or four days per week because I rely on this season to work and get money for my school and other expenses ..."(Interview data Student A). Another student has confirmed that her attendance increased during non-coffee picking school terms and decreased in the coffee picking season, when the parents needed her for household work: "...I miss more school-days or at least two days per week in coffee than in the non-coffee picking school days because of my household work responsibilities" (Interview data Student B). During coffee picking season, "..I and many of my friends become happy because this is the only time of the year during which we get money... many of us do not have interest to go to school and we can be absent from school for more than two months consecutively until the coffee season is over" (Interview data Student C). Furthermore, one teacher managed to express what so many teachers and school principals observed year after year in schools serving coffee growing communities in Sidama:
> ...During coffee harvest season, the majorities of students who are attending my class go to work to generate income instead of coming to class. Out of the 60 students registered in my class, only 10-15 students show up in my class during first semester. At the end of the harvest season, some of them return to class after two months of absence while a few students drop out from the school altogether". (Interview Data, Teacher B).

The findings of this study appear to support what others have already asserted about the seasonality of children's work and school attendance patterns (e.g., José M. Borrás Llop ,2005; Teachers' Union of Nepal, 2010; Shonchoy Abu \& Ito Seiro, 2012; Hadley Sierd ; 2010; Abebe, 2007 ; Burbano Carmen and Gelli Aulo, 2009). As Getachew (2002) has indicated school attendance in the rural areas is impractical due to the high child farm labor during agricultural peak season. This problem seems more pronounced in schools serving intense coffee producing agricultural communities as the findings of this study have suggested.

For instance, Abebe Tatek (2007) studied children's work and schooling pattern in Sidama's neighboring coffee growing livelihood zones in Gedeo Zone and concluded that the time between August-December is the busiest season of the year, in which the demand for child labour peaks as coffee producing peasants and members of their households collect and process coffee beans. He further attributed this problem to the widespread adoption of the September-toJune school calendar in coffee producing regions. While the existing school calendar seems
compatible with the agricultural work and demand for child labour in the grain-producing regions of the Northern Ethiopia, it conflicts with the agricultural work and demand for child labour in coffee producing regions (Abebe, 2007).

Consequently, the low school attendance rates reported during the coffee picking school days is not surprising in view of the fact that close to $80.3 \%$ and as many as $57.8 \%$ of the study participants were engaged in picking and processing coffee and in small scale coffee trading business at the time respectively. It is unclear; however, in the present study whether or not the observed seasonal variation in children's work pattern is related to the observed seasonal variation in school attendance rates because establishing such relationship requires availability of longitudinal data both on children's work and attendance patterns collected across different seasons and school terms. The findings in this study, however, provide some indication that the seasonal nature of agricultural work in the coffee sector might shape not only the seasonality of children's work participation pattern, but also their school attendance rates.

Furthermore, some of the findings about the seasonal difference in children's work and school attendance can be easily explained in terms of a simple human capital theoretical framework. In human capital theory, it is argued that an individual's decision to miss school (or indeed to drop out) as based on comparing the expected costs and benefits in a rational choice framework. The benefits are the returns from further investment in human capital. The costs include opportunity costs of truancy: the value of what they are missing out by attending school (Mora, 2001). In line with this argument, Hadley (2010) states that in many parts of sub-Saharan Africa where children and their families must still balance schooling with work, seasonal changes in the demand for child labour (and therefore the opportunity cost of education) has an impact on children's school attendance rates.

### 5.4. Relationships between children's work and school attendance patterns

Finally, this study has examined whether a relationship exists between children's work and school attendance patterns. Syntheses of the quantitative and qualitative findings have shown similar results that the extent of children's work influences their school attendance rates. As shown in the findings chapter, the quantitative findings identified a set of statistically moderate significant correlations between (a) average number of days of school absence per year in the 2007 academic year and average days worked per week in the past 10 school months $(\mathrm{r}=.531$, p
$<.001$ ) and (b) between average number of days of school absence per year in the 2007 academic year and the average hours worked per day in the past 10 school ( $\mathrm{r}=.394, \mathrm{p}<.001$ ). These findings suggest that work which is combined with school learning has a detrimental effect on children's ability to maintain regular school attendance patterns. Those who worked fewer hours per day and few numbers of days per week registered better school attendance rates. Conversely, students who worked longer hours per day and higher number of days per week maintained poor school attendance record.

This quantities result matches the findings obtained both from the student and the teacher interviews as explained in the findings chapter. However, the negative impact of children's work on school attendance patterns were described in relation to coffee picking season in both the teacher and student interviews. This is evident from the interview data obtained from a school who stated that "In coffee growing communities student absence is due to seasonal child labor. Many children who reside in and around coffee growing areas do not attend school because they are busy in pecking coffee..." This suggests the need to isolate the influence of seasonal child work from other types of child work activities when one is examining the relationship between the intensity of child work and school attendance patters. For instance, Assaad, Levison and Zibani(2007) documented that an assessment of whether or not work affects educational attainment is sensitive to how one measures the intensity of children's work. They also argued that the traditional measure of child work intensity (average number of hours of work per week) tells researchers very little about the intensity of child work. The relationship between a child's work and school outcome indicators look very different depending on whether child work is carried out in a particular time of year or simply intermittent throughout the year (Assaad, Levison and Zibani, 2007). Therefore, adequate amount of data for seasonal and continuous (non-seasonal) child work variables and further research about the effects of those variables on school outcome indicators are necessary.

Moreover, the results obtained from quantitative and qualitative data in this study regarding the relationship between patterns of children's work and school attendance can be explained using the zero-sum theory. In the zero-sum theory, it is argued that participation in work takes up a large amount of the children's time, which negatively affects their academic performances (Warren John R., LePore Paul C.,\& Mare Robert D,2000). Students have a finite amount of time
available to them for activities. The more time that is spent on work, the less time there is available for attending school and class (Warren John R., LePore Paul C.,\& Mare Robert $\mathrm{D}, 2000$ ). Furthermore, the findings in this study are consistent with other studies reported elsewhere (see, for example, Patrinos and Psacharopoulos ,1995; Singh ,1998; Heady ,2000 and Rosati and Rossi ,2001; Ray and Lancaster , 2004) as well as with studies conducted in Ethiopian settings (Admassie and Bedi 2003 and 2008, Woldehanna et al, 2005a, Abebe Tatek , 2007 and Orkin , 2012).

While the qualitative and quantitative dataset obtained from students in the current study suggests relationship between children's work and school attendance patterns, the relationship is not necessarily causal. Some students, for example, make decision not to attend school due to other reasons. The qualitative findings obtained from one teacher in this study demonstrate that students' absence from school is partly due to lack of motivation and interest in school work: "Most students in Sidama who do not have work responsibilities lack the motivation needed to devote their time for school learning..."(Interview Data, Teacher C). Similarly, another teacher commented that motivated students who combine school even with paid work can "compensate the time they have lost in working. In some cases, they even perform better than students who do not work at all. (Interview Data, Teacher C).

In situation like this, motivation of the student appears to explain the incidence of student absenteeism more than the phenomenon of child work. Apart from students' motivations, however, there is the issue of quality and relevance of curricula materials to the lives of the children, Breidlid (2013), for instance, recognizes the importance of improving education's relevance to the socio-cultural circumstances of the indigenous students. According to Breidlid (2013), the lack of relevance of the curriculum is a sign of declining education quality among indigenous communities. In the current study, the qualitative interview findings obtained from one teacher reflects similar situation. For instance, describing the characteristics of the students in his school one teacher has stated the fact that most children "express their happiness when the school day is over. They feel like a prisoner released from jail..."(Interview Data, Teacher C). The quoted statement implies the lack of relevance of the school curriculum is an important factor in explaining children's school attendance rate. This may be one of the reasons why the
performance of Sidama primary school children was the poorest in the Ethiopia Early Grade Reading Assessment (ERGA) as shown in the introduction chapter.

## Chapter 6: Conclusion and Recommendations

### 6.1 Introduction

The aim of this concurrent mixed methods study was to determine patterns of children's work combined with schooling and its association with school attendance in coffee and non-coffee picking seasons in Sidama Zone, Southern Ethiopia. The reason for combining both quantitative and qualitative data is to better understand this problem by converging both quantitative (broad numeric trends) and qualitative (detailed views) data. In the previous chapter, findings obtained from both the quantitative and the qualitative data are integrated and are discussed in relation to prior research findings and theories dealing with child work and its association with school attendance and school performance indicators. This chapter presents the conclusion of the study based on the analysis and discussions of the results made in the preceding chapters. It also outlines the recommendations drawn from the conclusions of the study.

### 6.2 Conclusion

The widespread expansion of schooling in Ethiopia has brought increasing number of children to schools. However, as the findings of this study have demonstrated, increasing enrolment trend in primary schools has not prevented children from work responsibilities. The study concludes that combining domestic, farm and off-farm work and school is a common practice among students in coffee livelihood zones in Sidama. Domestic work is the most prevalent type of work combined with school learning followed by farm and off-farm work respectively. In addition to attending school, children in the study area are required to help with household chores and make a productive economic contribution to their family by helping in the family farm and off-farm local labor market.

In addition, the findings in the present study further reveals that in Sidama coffee livelihood zones the coffee picking season is the most difficult and critical time of year, especially for children who combine farm and off-farm work and school responsibilities. As defined in this study, the coffee picking school days or season is the first four school months (from September to December) that coincide with coffee harvest season in study area which falls during semester one according to the schools' calendar. This is the time of the school year when the intensity and
regularity of children's work are highest. Both the quantitative and the qualitative findings suggest that the children's work burden increases with the onset of coffee picking season.

Furthermore, in schools serving intense coffee growing communities in the study area, children's school attendance pattern has seasonal character. In other words, since children's work pattern is seasonal, coinciding with farm and off-farm coffee production activities, and the school calendar if inflexible, a decline in school attendance occurs during coffee picking school days in schools of Sidama Zone serving coffee growing agricultural communities. The coffee picking season is not only a high absenteeism season; it is also a school dropout season for significant number of children who combine coffee-related work and school as the qualitative findings of this study has demonstrated. Given these problems, schools in coffee growing areas are likely to be at their least effective time of the school year during coffee picking season.

Finally, an important message to be drawn from this study is that both the intensity and the regularity of children's work patters are strongly related to the extent of children's school attendance rates. As children work more number of days per week, their attendance decreases. Similarly, children's self-reported attendance declines when hours worked per day increases. Based on these results one can safely conclude that children's work, even in limited amounts can adversely affect the children's learning when it is combined with school responsibilities as reflected in a reduction in the school attendance rate. However, a number of limitations need to be considered in interpreting the conclusions and the results of this study.

Firstly, despite the benefits that mixed methods researchers can take, this approach is a challenge in that it requires more work and financial resources, and takes more time than singular methods (Creswell, 2003). The practical difficulties to a large extent limited the current research in terms of sample size for the qualitative phase of the study. In view of the limited time available for data collection, only three students were selected from among the 240 children who participated in the quantitative phase of the study. While the student interviews have provided insights on the extent of children's work and school attendance across the two different seasons addressed by quantitative part of the study, the small number of participants in the qualitative part of the study may compromise the principle of maintaining equal weighting in mixed method studies using a concurrent triangulation design. Hence the thesis is biased towards quantitative data source. However, small sample for the qualitative part of this thesis is somewhat counterbalanced by the
inclusion of three teacher interviews which also served as important data source triangulation strategy in the current study

Secondly, for the quantitative part of this thesis, student attendance was measured using selfreported measure. There is a potential to underreport absenteeism and exaggerate on number of days attended by the respondent. Nevertheless, while self-reported attendance are hardly a perfect or objective measure of the exact number of days students have attended or have missed school days, it does provide a yardstick to measure the extent of the problem, especially in schools where information and school data management systems are not sufficiently strong to collect, analyze and report on daily attendance. As has been discussed in chapter three, it was not possible for the investigator to tell exactly which student was really absent or present on a particular school day by looking at the schools' attendance record sheet. Hence early in the research process, the researcher decided to collect children's school attendance data using participants 'self-reported data instead of using the inaccurate school records.

Third another weakness of the qualitative part of the study was the taking of notes rather than audio-recording. None of the six interviews were audio recorded thus; it is possible that not all the informants' statements were fully captured. However, the researcher, attempted to recode as much as possible by asking the informants to talk slowly and to repeat central messages so they could be recorded word by word.

Fourth, a major limitations common to both the qualitative and the quantitative approaches is related to the cross-sectional nature of data used in the study. By their design type, crosssectional studies do not generate accurate data on seasonally varying phenomenon such as children's attendance and work patterns, making it difficult to establish causal relationships across different time periods. Longitudinal designs would have been the gold-standard design; however, these designs are expensive in terms of time and resources. While the cross-sectional data sets used in this study have yield results that are similar to those from longitudinal data, a more comprehensive approach involving longitudinal designs should be used in future studies examining the seasonality of children's work, school attendance and other school outcome indicators.

### 6.3 Recommendations

The discussions of the findings of this investigation seem to have some practical implications to educational administrators, policy makers, and researchers. From the findings therefore, one may arrive at the following conclusions and recommendations:

First, based on the results of this study, it is important to revisit existing child labor policies and aim for strategies to accommodate work and school, especially in schools serving coffee growing agricultural communities in Ethiopia. Given the findings in this study that significant proportion of children are engaged in productive and economic work that may constitute child labor according to international and national standards, existing national legislation and policies to ban child labor or child work altogether in the study area may be unrealistic at least in the short term. This is not, however, to legitimize child labour in the coffee growing agricultural communities. Rather, strategies designed to accommodate child work and school should go hand in hand with efforts designed to ban child work that pose threats to children's health and education until child labor is completely eliminated in the long run in order to should go increase school attendance among children who combine work and schooling. Any forms of work that interferes with children's education should be banned.

Second, since coffee growing households are the major employer of school children in coffee farm work activities, affecting their circumstances and attitudes plays an important role in reducing the adverse impact of work on school attendance. This can be done by reducing opportunity costs to children's schooling in coffee producing agricultural community, e.g. through childcare provision or investment in labor saving infrastructure, and by providing incentives for their students' regular school attendance to reduce the direct costs of children's schooling. This strategy is particularly important in coffee producing areas where the household's poverty has exacerbated due to the resent reduction of coffee prices in the international market (Oxfam, 2006).

Third, school attendance records need to be correct to accurately reflect the actual attendance of students. The accuracy of student attendance records in schools in the study area was found to be questionable. However, care should be taken not to enforce rigid attendance requirement because students who miss out many school days will not return and may become dropouts and repeat grades. As the qualitative findings of this study has shown, some students are absent for two
consecutive months during coffee picking seasons to do paid work in local coffee processing firms. These students would not have been able to return to their school had the school officials followed strict and rigid attendance requirements. Nevertheless, keeping accurate school attendance data is crucial to design intervention programs that aim to compensate for class time lost to work. Holding extra class for working students during other times and preparing individual study materials might help a lot in this regard.

Fourth, in order to raise the school attendance rate of working children and control the adverse effect of work school performances, the finding of the study underscores the importance of introducing more flexible school calendar in schools that are surrounded by intense coffee plantations. While schools have little control over students' seasonal work schedules, they can influence the negative impact of their students' engagement in different forms of work on school attendance by redrawing the present school attendance zone, which usually runs between September and June coinciding with peak coffee labor season. Flexible school scheduling and other efforts designed to make it easier for children to combine school and work should only be applied to different forms of work considered in this study. Other, hazardous, forms of work should be targeted for elimination.

Fifth, the results obtained in this study can provide a strong base for creating increased awareness on the importance of education. Policy makers and school administrators should work together with stakeholders to sensitize parents about the importance of education and the need for regular student attendance. For instance, schools can take the initiatives to organize meetings and facilitate door-to-door visits within their coffee producing agricultural communities in their areas to discuss ways to combat seasonal low school attendance and encourage parents to send their children to school regularly.

Finally, the findings of this study open up avenues of further research in other coffee growing areas to make nation-wide policy decisions. Specifically, future research could extend the present study by investigating the situation of school-going children residing in other coffee growing regions. Moreover, although the findings of this study have provided important clues for further research into the seasonality of children's work and school attendance patterns, more research employing longitudinal design is needed in order to establish the true relationship between seasonal variation in the extent of children's work and seasonal variation in school attendance.

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## APPENDIX 1:

## STUDENT QUESTIONNAIRE

## OSLO AND AKERSHUS UNIVERSITY COLLEGE OF APPLIED SCIENCES STUDENT QUESTIONNAIRE

## Dear Students,

My name is Mehdi Abdo. I am a student at Oslo and Akershus University College of Applied Sciences, Norway, enrolled for a Master`s degree at the Department of Multicultural and International Education. I am conducting research for the purposes of my thesis. The purpose of my study is (1) to determine the patterns of children's work combined with schooling and its association with school attendance in coffee and non-coffee peaking seasons among students enrolled in primary schools serving intense coffee growing agricultural communities in Sidama Zone ,southern Ethiopia; (2) to understand the working and schooling experiences of students who combine work and schooling and (3) to explore meanings ascribed to those experiences in selected communities where most people are coffee growing farmers.

Your school and class have been randomly selected to take part in this study. You are one out of about 250 students participating in the study. Your participation in this study will contribute to a better understanding of the lives of children inside and outside schools. I believe that the findings of this study will provide potential assistance to Sidama Zone education officials in order to better understand the educational situation of school-going children who combine work with school responsibilities. The study may also provide insights into the proper design of optimum school calendar in order to accommodate the working and learning needs of children of intense coffee growing agricultural communities and their parents. I would appreciate your assistance in filling out the questionnaire designed for the study.

The questionnaire will take about 15-20 minutes to complete. All your responses will be confidential. No one except me will have access to the information that you provide. Neither your name nor the name of your school will be used in any reporting of the research. Your Principal/Head Teacher has agreed for the research to be conducted in your school. However, participation is voluntary. You may withdraw information at any time, without giving reasons or being disadvantaged.

Thank you very much for your time and for making this study possible. If you have any queries or wish to know more, please contact me at:

## SECTION A: DEMOGRAPHIC

## The first questions ask for some background information about your self

1. What is your sex?MaleFemale
2. How old are you? (Select one). $\square 10 \square 11 \square 12 \square 13 \square 14 \square 15 \square 16$ and above
3. Do you have any brothers and sisters? (Select one). $\square$ Have only brother/s $\square$ Have only sister/s $\square$ Have both brother/s or sister/s $\square$ Have no brother/s or sister/s
4. Which grade are you in? (Select one). $\square 5^{\text {th }} \square 6^{\text {th }} \square 7^{\text {th }} \square 8^{\text {th }}$
5. Where do you live? (Select one). $\square$ urban $\square$ rural
6. Which ethnic group best describes you? $\square$ Sidama $\square$ Amhara $\square$ Oromo $\square$ Other
7. What language(s) do you usually speak at home? $\square$ Sidamigna $\square$ Amharic $\square$ Oromifa
8. How do you describe your religion? (Select one). $\square$ Christian $\square$ Muslim $\square$ other
9. How do you usually travel to work? (Select one). $\square$ Bicycle $\square$ Public transport Walking $\square$ Depends on situation

## SECTION B: STUDENTS' SELF-REPORTED PATTERNS OF WORK COMBINED WITH SCHOOLING

1. Last year when the school was in session and classes were running, were you engaged in each of the following types of farm work activities for at least one hour? (Please check only one box in each row.)

| Type of work farm work | Response |  |
| :---: | :--- | :--- |
| 1. Coffee peaking and processing work | YES | NO |

Think of Coffee peaking and processing farm work as any type of unpaid work that you have undertaken outside of your school in coffee peaking and processing and related activities on your family farm

## 2. Harvesting and Processing Non-Coffee Crops

YES
Think of Non-coffee crops harvest work as any type of unpaid work that you did in harvesting food crop items (e.g. maize, enset, potato, root crops) on your family farm things you did in Non-coffee crops Harvest work

## 3. Non-Harvest Farm Work

Think of Non-Harvest farm work as any type of unpaid work that you did such as preparing land ,planting seedlings, fertilizing the fields; sowing, pruning, thinning, and guarding produce weeding and other types of carrying and farm

## maintenance work on your family farm

| Animal Care and Tending | YES | NO |
| :--- | :--- | :--- |

Think of Animal Care Tending work as any type of unpaid work that you did in tending and feeding of animals including veterinary services and milking of cows ; harvesting grass for cattle, feeding animals, tending sheep and goats watering, yogurt preparation, churning and butter, cleaning sheds, Dung collection, making dung cakes, cleaning animals, collecting water and food for animals; moving animals from place to place; and replacing animal's sleeping grass, building sheds, check feeding, collection of eggs, cutting green fodder and bringing dry fodder on your family farm
2. Last year when the school was in session and classes were running, were you engaged in any of the following types of domestic work activities? (Please check only one box in each row.)


#### Abstract

| Household /Domestic chores | YES | NO |
| :--- | :--- | :--- |

Household chores, as defined in this study are any types of domestic or personal services provided by you as unpaid member of your household. This include any types of household work involving the collecting firewood for domestic use , House cleaning and plastering such as sweeping, mopping, shopping, washing clothes, preparing and serving meals, washing dishes, and fetching water and firewood; food preparation, gathering fuel, going to mill and other types of housework, Fetching water ,Cleaning, Cooking food ,Caring for siblings / childcare or Caring for the sick or elderly people in the own home; and Making small repairs in one's own house in addition to cleaning the compounding and the house, grinding, churning milk, errands, washing utensils, preparing grain for processing, making bed etc.


3. Last year when the school was in session and classes were running, were you engaged in each of the following types of off-farm paid work activities for at least one hour? (Please check only one box in each row.)

| Type of off-farm paid work work | Response |  |
| :---: | :--- | :--- |
| 1. Small scale Coffee Trading or Business | YES | NO |
| Think of coffee trading work as ant type of work involving selling and buying dry or wet coffee to earn |  |  |

money in the local market or other places
2. Paid work in Coffee Picking and processing

YES
Think of paid coffee peaking and processing work as any type of paid work that you have undertaken in coffee peaking and processing and related activities outside the home for employer elsewhere

| 3. Trading Non-Coffee Produce and Animals | YES | NO |
| :--- | :--- | :--- |
| Think of trading non-coffee produce and animal work as any type of market work that you have <br> undertaken including buying and selling food crops, cash crops like chat fruits and animals(sheep, goats, <br> chicken,etc) |  |  |
| 4. Producing and Selling Artistic or Craft work | YES | NO |

This type of work include making ,selling or buying pottery, black smithing, weaving, basketry, building (e.g.. woodwork, weaving, bat making, basket making, spinning, etc)

\section*{| 5. Semi Skilled technical work | YES | NO |
| :--- | :--- | :--- |}

Off-farm Paid work in Construction (e.g. Road, tree planting) , Mini-bus conductors, household maids, construction work in catering houses, cleaning cups and dishes in restaurants, Apprentices in garages/ workshops, Brokering,etc

## 6. Casual work

YES
Paid manual labor work such as Crushing stones for sale Collecting firewood/ dry cow dung to sell Shoe shining, or any type of Non-farm/ market-related activities involving the Loading of goods on pack animals for market etc

## 7. Street Vending and other types of small business

 YES NOStreet vending ( selling roasted grain or kollo, chewing gum, cigarettes, etc.), Selling fruits , injera and ambasha,

8. Non-coffee Wage Work $\quad$ YES | NO |
| :--- | :--- |

All types of wage work not related to coffee work activity such (shop keeping, civil service, herding animal on someone's farm undertaken for employer to generate income
4. Last year when the school was in session and classes were running, approximately for how many days per weeks did you work in all types work activities you said you were engaged in for at least one hour in the past 12 months? (Please check only one box)

| I did not | $\mathbf{1}$ day per | 2 days per | 3 days per | 4 days per | $\mathbf{5}$ days per | 6 days per | 7 days per |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |


| work | week | week | week | week | week | week | week |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

5. Last year when the school was in session and classes were running, approximately for how many days per weeks did you work in all types work activities you said you were engaged in for at least one hour in the past 12 months? (Please check only one box)

| I did not <br> work | 1 hour per <br> day | 2 hours per <br> day | 3 hours <br> per day | 4 hours per <br> day | 5 hours per <br> day | 6 hours <br> per day | 7 hours per <br> day |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

6. Last year when the school was in session and classes were running, approximately for how many days per weeks did you work during coffee-peaking (September-December) and during Non-coffee season( February-June) in all types work activities you said you were engaged in for at least one hour in the past 12 months? Please check only one box)

| Number of days worked per week in |  | 突 | $\underset{\text { N }}{\stackrel{n}{6}}$ |  |  | $\underset{\text { in }}{\substack{0 \\ \text { in }}}$ | ¢ | 盛 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Coffee peaking season (Sept-December) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Non-coffee season(February-June) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

7. Last year when the school was in session and classes were running, approximately for how many hours per day did you work during coffee-peaking ( September-December) and during Non-coffee season( February-June) in all types work activities you said you were engaged in for at least one hour in the past 12 months? Please check only one box)

| Number of hours worked per day in |  |  |  |  |  |  |  | ~ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Coffee peaking season (Sept-December) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |


| Non-coffee season(February-June) | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{6}$ | $\mathbf{7}$ | $\mathbf{8}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## SECTION C:STUDENTS' SELF-REPORTED ATTENDANCE PATTERNS

Now I would like to ask you some questions about your attendance at school. There are many reasons that children sometimes don't attend school, sometimes miss the entire school day though it is open and classes are meeting.

1. During the 2007 academic year school was in session and classless were running, how many days did you miss the entire school day?

| Days <br> Missed |  | $\begin{aligned} & \vdots \\ & \vdots \\ & 0 \\ & \vdots \\ & 0 \\ & i \\ & \vdots \\ & \vdots \end{aligned}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Code | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

2. Last year when the school was in session and classes were running, approximately how often did you miss the entire school day during coffee-peaking school terms (SeptemberDecember) and during Non-coffee season (February-June) ? Please check only one box)

| Days missed in | $\begin{aligned} & \sharp \\ & \ddot{0} \\ & 0 \end{aligned}$ | $\begin{aligned} & . \\ & \ddot{0} \\ & 0 \end{aligned}$ | $\begin{array}{ll} . & \\ \ddot{U} & \\ 0 & 0 \\ 0 & 3 \end{array}$ | $\begin{array}{ll} \exists & \tilde{\#} \\ \text { U } \\ \tilde{0} & \vdots \\ 0 & m \end{array}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Coffee peaking season (Sept- <br> December) | 1 | 2 | 3 | 4 | 5 |
| Non-coffee season(February-June) | 1 | 2 | 3 | 4 | 5 |

# APPENDIX 2: STUDENT INTERVIEW GUIDE <br> OSLO AND AKERSHUS UNIVERSITY COLLEGE OF APPLIED SCIENCES STUDENT INTERVIEW GUIDE 

Date of Interview: $\qquad$

Time of Interview: $\qquad$

Location of Interview: $\qquad$

Name of Interviewer: $\qquad$

Name of Interviewee - pseudonym:

## INTRODUCTION

I really appreciate your taking the time to talk with me

- Introducing myself to the selected student
- Explanation of my research objectives:
- Description of the interview procedures,
- Informing about the informed consent secured from his/her parents/guardians
- Ensuring confidentiality and reminding right of the interviewee to decline or continue
- 


## SECTION A: BACKGROUND INFORMATION

Transition: I would like to begin by asking you some general questions about you and your family (or other household members, and the relationship you have with family members.

## Tell me about yourself first

1. What is your name? How did you get your current name? Do you like it? Why? Can you tell me the meanings attached to your name?
2. What is your age? Do you know the exact date and place where you were born? How did you know? Did your parents /or somebody else / tell you about the day and place you were born or you know it from others?
3. Tell me about your views on what it means to be a child /and a good child / in your community? Who is regarded as a child /and a good child / in your community? Given your current age, do you consider yourself as a child? Why?
4. Could you please tell me everything that you like (do not like) about being a child? Could you tell me about the things that make you happy or unhappy?
5. In what ways are children different or similar to adults living in your community? Probe: respect and recognition, treatment, discipline, social roles and expectations of childhood and adulthood periods
6. Where are you from? Are you originally from Sidama ethnic origin? How long have you lived in this area?
7. Where do you live? What kind of house do you live in? Where is your home located? How far is it from school? What is the house that you grew up like? How many bedrooms does it have? What is your bedroom like?

## Tell me about your family (or about your household Members)

1. Who do you live with? Do you have a small or large family? How many people live in the household including you? For how long have you been living with the people you mentioned live with?
2. How many brothers and sisters do you have? How many of them are older or younger than you? How many of them are male or female? How many of them go to school or do not attend school? Why is it that some are going while others are not?
3. How do your families earn money? What kinds of things do your families do to earn money? Could you describe the economic activities of all of your household members?
4. How does your family compare to others in the neighborhood - richer, poorer, the same?
5. Tell me more about the head of the household. Who is head of the household? (Please describe to me the head of your household in terms his /her sex, age, marital status, annual household income, birthplace, education, and language spoken, religion etc)

## Please describe to me your relationship with your family.

1. What is your relationship with the head of the household?
2. What is your relationship with other school-age children (aged 7-17) who are members of your household?
3. Who is the closest person to you in your family? Why do you think you are closer to the person you have mentioned than to other members of the family? Could you explain?
4. Do you think that your parents respect and care for your more than the respect and care they give to your brothers and sisters or to other school-age children (aged 7-17) who are members of your household? Why?

## SECTION B: YOUR EXPERIAMCE OF WORK COMBINED WITH SCHOOLING

I would like you to tell me about how you spend your time outside school during the 10 month periods of school when schools are in session. I am particularly interested to know your involvement in two types of work activities that many students in your community participate in outside of schools. Market Work and Domestic work. I will also ask you some questions about how your work changes in two different seasons; namely, in the coffee peaking and non-coffee peaking seasons or school terms

## About how you spend your time outside school

Let me begin first by asking you two important questions:

1. What do you like to do when you are outside school?
2. Tell me about all sorts of things that you do when you are outside school with your family inside or outside your home?

## About your involvement in market and domestic work

3. Do you do any paid /or unpaid market work (both outside your home)?

I will read you the definition of Market Work When I say paid market work I mean things like -------------. When I say unpaid market work I mean things like --
$\qquad$
Probe about the details of paid /or unpaid market work, the types of work, hours of work and general nature of your work condition, context of work (when,
where, with whom the work was undertaken, etc) responsibility, pay, opportunities, challenge, respect and recognition associated with the paid/or unpaid market work undertaken outside school while the school was in session?
4. Do you do any domestic work when the school is in session?

I will give you the definition of domestic work. When I say Domestic work I mean things like ------------- Probe: types of domestic work, hours, responsibility, context of work (when, where, with whom the work was undertaken, etc) ,opportunities, challenge, respect and recognition associated with the domestic work activities that you have undertaken outside school while the school was in session?
5. What are your likes or dislikes about the work activities that you have undertaken outside school?
6. What do you feel are the benefits of working outside school while the school is in session? Probe in terms of providing or increasing (1) positive reward of contributing to family livelihood, (2) Opportunity to learn and practice useful livelihood skills, ( 3 ) Earning money for the student and the family, (4) Strong sense of cultural identity, (5) Increased understanding of community's traditional knowledge
7. What has been your most challenging experience of work undertaken outside school and why? Probe: Potential risk associated with work undertaken outside school including, poor health, poor attendance, low wage or exploitation of the child, etc., What has been your most positive experience of work you have undertaken outside school and why?
8. Who in your family decides concerning the type, hours, nature and context of your work? On what basis is this decision made? Do you have any say in this decision? How much choice do you feel you have in the type, intensity, duration, nature and context of your work undertaken outside school? Would you like more choices or more control over this? If you do not want to go undertake any work, can you refuse and stay at home?
9. Tell me the reasons why you have been combining work with school. What are the main reasons? Probe for the importance of money vs other factors)
10. Can you tell me about a meaningful experience of your work that you believe helped you improve? What was it and why do you think it helped?
11. How do you feel as a child who not only attend school but also assist in farming activities?

## About your work in coffee peaking and non-coffee peaking seasons or school terms

1. Do you know the Sidama Calendar and the different agricultural seasons followed in a year? Please describe the nature of each season to me. Could you tell me about the busiest and quietest times of the year for you and your families in terms of your/their workload?
2. Is there any seasonal variation in the types, intensity and conditions of each types of work you combined with schooling? Please explain
3. Are there times that you feel less and more work pressure than others? Can you tell me more about those times?
4. Tell me more about your experiences of work that you have combined with schooling during coffee peaking and non-coffee peaking seasons or school terms
5. Has the onset of coffee peaking season ever increased your work pressure? What was the reason?
6. Is there anything that you can tell us me about your positive, challenging, negative, good or bad work experience that you have not told me yet?

## SECTION C: YOU'RE EXPERIAMCE OF SCHOOLING AND SCHOOL ATTENDANCE

This is the last section in our interview. In this section I would like to ask you some questions about your school and about your experience at the school, and school attendance patterns and experiences

## About your school and your experience at the school

I would like to start by asking you some questions about your school and your schooling experience

1. What school do you go to? How long have you been a student at this school? What grade are you in at school? How do you get to school in the morning? E.g. Bus, walking.
2. Can you tell me a bit about the school, your general impressions? How would you describe your school? What is best / and / the worst thing about your school? What do you think are its strengths and weaknesses/
3. Tell me about your experience when you go to the school. Do you feel safe at school? What it's like to learn in this school. What do you like about being a student at this school? What don't you like about being a student at this school? Is there anything else that is good or not good about your experience of being a student at this school and why?
4. Tell me about your interaction with your (a) classmates (b) with teachers, and (c) with your school principal. Prompt: about what they are like, how they act towards, things that they do which may or may not help to learn at the school
5. Now I want to know more about how you are performing at the school. How do you think you're doing at school? Prompt: What subjects are you good at? How do you know? What is your favorite school subject? How does your teacher think you're doing? What grades do you get in most of the school subjects? How do you feel when you get good or bad grades?

## About your perspectives on school attendance

Now I would like to ask you some questions about your attendance at school. There are many reasons that children sometimes don't attend school, sometimes miss class periods, or come late for school, even though it is open and classes are meeting.

1. How do you define 'school or student attendance'? Absenteeism? Lateness? Early departure from school? When do you say that you have or you have not attended school? How do you know that you have or you have not attended school day/s?
2. Could you tell me how your school principals and your teachers define school or student attendance? Absenteeism? Lateness? Early departure from school? When do they regard the students have or have not attended school?
3. How do your school principals and your teachers, and your parents/guardians/know that you have or have not attended a school day? Do they collect record and exchange any information about your attendance pattern?
4. Could you tell me more about the process of collecting and recording student attendance at your school? Probe: type of information, who collects and records the information
with what, when and how often it is collected and recorded and the reason why this is practiced at the school
5. How important is it for you to maintain regular or irregular school attendance patterns throughout the school year? Could you tell me about the challenges and /or the Benefits of attending or missing school?

## About your experience of school attendance in 2007 school year

6. How would you describe your attendance pattern at school in the 2007 academic year?
7. Did you go to school every day, or have you ever been absent or late to attended school in the 2007 academic year? When? Why?
8. How do you and/or your parents/guardians report your absences to the school?
9. How do your teachers and/or the building administrator(s) respond to your attendance behaviour?
10. What do you feel about your school attendance behaviour? probe : when maintain regular school attendance, when you miss the entire school day, when you are late to school, when you leave school early before it is closed
11. What were the reasons for you to maintained regular or irregular school attendance patterns? Probe : student factor, school factor, family related-factors, peer influence, etc

## About your school attendance experiences in coffee and non-coffee peaking school terms

12. Are there times that you feel less interested in going to school than others? Can you tell me more about those times?
13. How would you describe your attendance pattern across different periods of the 2007 school year? Probe : during different months of the 2007 school year, during different semesters or terms of the 2007 school year, during different days of school week in the 2007 school year
14. In the 2007 academic year how do you compare your school attendance during coffee peaking season and during non-coffee peaking seasons? Was it difference? Why?
15. Has the onset of coffee peaking season ever influenced you to miss the entire or partial school days? What was the reason?

Perspectives on the effect of combining work with school on school attendance
16. Do you enjoy your work more than you enjoy your school work? Why? Why not?
17. Do you think that the work you combined with school attendance is a cause for you to be absent from school, to come late to school and to perform poorly in your school requirements? Why? Why not?
18. In what ways, if any, do you think your engagement in work prevents you from improving your attendance at school?
19. When is your school attendance limited by the extent of work, and when and why is it limited by other factors such as school and family related factors?
20. Is there anything that you would like me to know more concerning your work and school attendance patterns in coffee and non-coffee peaking seasons while schooling?

# APPENDIX 3: TEACHERS AND PRINCIPAL INTERVIEW GUIDE <br> OSLO AND AKERSHUS UNIVERSITY COLLEGE OF APPLIED SCIENCES SCHOOL TEACHERS AND PRINCIPAL INTERVIEW GUIDE 

Name of the school $\qquad$

Name of Interviewer: $\qquad$

Name of Interviewee - pseudonym: $\qquad$
Position of the Respondent

Date of Interview: $\qquad$

Time of Interview:

Location of Interview:

## INTRODUCTION

I really appreciate your taking the time to talk with me

- Introducing myself to the teacher /principal
- Explanation of my research objectives:
- Description of the interview procedures,
- Securing informed consent from school teacher /principal
- Ensuring confidentiality and reminding right of the interviewee to decline or continue

SECTION A: BACKGROUND INFORMATION

Transition: I would like to begin by asking you some general questions about you and your school, and the characteristics of students at the school in general and students attending your class in particular.

Let us start talking about your background first

1. How long have you been a teacher/or principal? What schools have you worked before you came to this school?
2. How long have you been a teacher/a principal at the school you are working now? What brought you to this school?
3. How many years have you spent in formal education? What is your highest academic degree? Which type of degree was this? What grade/s is/are your responsibility? What subject/s are you teaching now?
4. How would you describe your current school? What is it like compared to the school you have you taught at before? Can you tell me a bit more about your general impressions of the school? What you think are its strengths and weaknesses/What it's like to teach here. Do you like teaching here? Why?
5. How would you describe the characteristics of students in your school? What are they like? Can you tell me a bit more about your general impressions of the children at this school? How do you think they see school? What is their response to homework?
6. Do you think this school caters for some students better than others? Probe for the importance of different student characteristics such as gender, language background, ethnicity, socio-economic background, home and parent backgrounds, etc

## SECTION B: TEACHERS AND PRINCIPALS' VIEWS OF CHILDREN AND CHILDHOOD

## About your perspectives on children and Childhood

7. What are your views of a child or children? How do you describe the characteristics of a child or children in your community? Probe the importance of age, children's social role and community and parents' expectations, cultural values, etc in defining a child in the country and in the community in particular
8. How do you feel are the most important socio-cultural values associated with children? Probe for number and sex-based socio-cultural values? What does it mean for parents to have more or less number of children in their family? Probe how this is related to wealth, respect and recognition, shame or poverty, etc for male children first and for female children
9. What is a childhood or what does the word childhood mean to you? How do you characterize childhood periods? How do most children spend their childhood periods in your community?
10. How do you describe the expectations of children's parents and other community members of their children and childhood periods? Probe for age-and sex-based expectations
11. How do children's parents and community members describe the characteristics of a good child/ a bad child/ in your community? How do you describe the characteristics of a good or a bad childhood periods? When do parents and community members say that a child in your community has spent a good or a bad childhood periods
12. In your view, what should be the proper place of children in your community in particular? Should it be in school, in a play ground, in work places, or in all places? Why?
13. How do you describe the power relations between children and their parents and between children and other adult community members? To what extent do you feel children are involved in decision making process within their families and communities pertaining matters that affect their lives?

## SECTION C: TEACHERS AND PRINCIPALS' PERCEPTION OF CHILDREN'S WORK AND ATTENDANCE PATTERNS IN COFFEE AND NON-COFFEE PEAKING SEASONS

## About your views on school children's work patterns

1. How common is the practice of combining work with school attendance among children, especially in your community? How widespread do you think is this practice all over the country? Do you think that school-going children who are from coffee growing communities are more likely or less likely to combine work with school learning than those children who are from non-coffee growing agricultural communities? Why?
2. What kind of work do school-going children living in your community do to earn money? What are the most common types of work children do to earn money? Probe for the type of paid work, frequency, hours of work, whether children's work is acceptable or harmful, beneficial to children, children's working conditions, etc.
3. What kind of work do school-going children school-going children living in your community do to help at home? What are the most common types of work children do to help at home? Probe for the type of unpaid work, frequency, hours of work, whether children's work is acceptable or harmful, beneficial to children, children's working conditions, etc.
4. What proportion of school-going children living in your community combining work with school attendance? Which groups of students work to earn money and /or to help at home while schooling? Probe: in terms of sex, age, levels of school performance, family background?
5. What are some of the main reasons why some group of children combine work to earn money and /or to help at home while others attend school only without undertaking any work outside school?
6. What do you believe encourages or discourages the practice of combining paid or unpaid work with school attendance in your community?
7. What do you feel about school-going children working in addition to their school responsibilities? Do you see this practice as a good or a bad thing for children and for communities? Why?
8. Do you think that children ought to work in addition to their school attendance responsibilities? Why do you think children ought to work? Why do you think children ought to attend school?
9. What benefits and drawbacks do you see in the practice of combining work with school learning in your community? Probe the benefits and drawbacks for the school, for the children, for the children's parents and for the community in general

## About your views on the situation of children's school attendance patterns

Last, a few questions about attendance or non-attendance

1. How do you define 'student attendance' at this school? Is it the opposite of nonattendance or absenteeism? When do you say that students at this school have or have not attended school, have arrived late for school, and have left school early before the school day is over?
2. How do you know that you student at this school have or have not attended school day/s, arrived late for school, and left school early before the school day is over?
3. Could you tell me more about the process of collecting and recording student attendance at your school? Probe: type of information, who collects and records the information with what, when and how often it is collected and recorded and the reason why this is practiced at the school
4. Describe the current attendance practices in your building as they do or do not relate to any attendance policies that are in place.
5. How do you see your role in responding to student attendance concerns? Who's responsible for addressing student attendance concerns in your school? What are his/her or responsibilities?
6. Is absenteeism or non-attendance a problem at your school? What is your overall observation of student attendance, absenteeism and lateness in the school you have worked in?
7. What types of students are mostly absent, late from classes? Probe for the influence of demographic profiles of children such as ethnicity, gender, income, geographic residence, school performances, age, etc.)
8. What was the overall attendance figure last year in your school /or class? Why have you had such rates of student attendance in the 2007 in your school?
9. In your experience, what are the main factors behind student attendance and student nonattendance? Probe: 'What do you think are the individual student, family, school and community factors leading to student attendance and student non-attendance?
10. When is it acceptable for a child to stay at home or not go to school (Probe different types of absence and what is acceptable and not acceptable and why or whether they would categories any of these as "non-attendance, late arrival, and early departure")
11. Which times of the year are student attendance, absenteeism and lateness school high or low? When are most students absent from school or late for school?
12. Which part of the agricultural season do you think many students normally do not come to school? Why?
13. How significant is children's seasonal farm work related to coffee in explaining the attendance or non-attendance patterns? On which particular day do many of the students absent from school? Which part of the month do you think many students normally do not come to school?
14. In what ways, if any, do you think you and your school can better address student attendance concerns?

## SECTION D: TEACHERS AND PRINCIPALS' PERCEPTION OF CHILDREN'S WORK AND ITS LINK WITH ATTENDANCE PATTERNS IN COFFEE AND NON-COFFEE PEAKING SEASONS

1. Are you familiar with different types of agricultural seasons followed in the Sidama coffee growing communities? Can you describe and mention to me the different
seasons by their local names? Which season of the year is your favorite season? Why?
2. In your view, what aspects of people's lives fluctuate on a seasonal basis? Can you tell me a bit more about how farmers and their children in Sidama coffee growing agricultural communities spend their time across different seasons of the agricultural year? Probe: about coffee peaking season, non-coffee peaking season, school holiday seasons
3. How do you describe the patterns of children's work participation and school attendance behaviour during each season: coffee peaking season, non-coffee peaking season?
4. Which season is good time/ or bad time/ for school children to work and earn money? Mention two months. What times are the good times for school children to attend school? Can you mention two months?
5. Do student sometimes miss school to do work and earn income in coffee peaking season? In non-coffee peaking season? Explain why or why not.
6. Do student sometimes miss school to do work at home and help parents in coffee peaking season? In non-coffee peaking season? Explain why or why not.
7. Do you think that students enjoy their work more than they enjoy their school work? Why? Why not?
8. Do you think that the work combined with school attendance is a cause for children to be absent from school, to come late to school and to perform poorly in their school requirements? Why? Why not?
9. Is there anything that you would like to add more concerning the issues of children's work and school attendance patterns in coffee and non-coffee peaking seasons

[^0]:    * $\mathrm{p}<.001$.

