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Dilla Journal of Education
Dilla University Journals System
Main Campus, Admin Bldg. 4th Floor
P.O.Box 419, Dilla, Ethiopia

Contact numbers:

+251911363403
+251911944488

Email: dje@du.edu.et
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Message from the Editor-in-Chief

As we present Volume 3, Issue 1 of the Dilla Journal of Education, I would like to express my heartfelt gratitude to the authors and reviewers whose invaluable contributions have shaped this issue. This edition features a diverse array of articles that address critical issues in education, including the challenges faced by parents of children with disabilities, the beliefs and practices of teachers and students in utilizing short stories, and the comparative analyses of education quality in public versus private primary schools.

A significant observation from our recent review emphasizes the need to situate our research within a broader global context. While each article effectively contextualizes its findings within Ethiopia, it is essential for the authors to articulate how their contributions extend or challenge existing regional and international scholarship. By doing so, we can deepen the discourse surrounding pedagogical practices and their implications across various contexts.

I encourage readers to engage with the insights presented in this issue, as they hold the potential to enrich our understanding of educational practices both locally and globally.

Mesfin Molla (PhD, Associate Professor)

Editor-in-Chief

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Unheard Voices of Parents to Enroll their Children with Disabilities in Public and Private O/Preschool Classes in Gondar City Administration: Efforts at Home

Tadesse Abera Tedla [1,*] ***and Zemenay Awulew Enyew*** [1]

[1]Department of Special Needs and Inclusive Education, University of Gondar; Ethiopia

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Abstract

The purpose of the study was to investigate the lived experiences of previously unheard voices parents of children with disabilities to enroll their children in to O/preschools. Parents of children with disabilities, school principals, special needs education teachers, education bureau special need experts, and education bureau manager took part in the study. Transcendental phenomenological design with qualitative approach was used. Data were collected through semis-structured interview guide and focus group discussion guides and were analyzed thematically through inductive and deductive approaches. Results indicated that parents tried hard their best to enroll their children in both public and private kindergartens, but the response of the schools was that they are not ready to accept such children. Parents with meager knowledge and sources are being challenged not to exert relevant efforts in and outside the home to compensate for the lack of access opportunities to help their children develop cognitive, social, motor, and behavioral skills. School principals, special needs education teachers, education bureau special need experts, and education bureau manager have tried their best to enroll the children with disabilities into schools; but it seems things are beyond their capacity and it needs urgent government intervention to enforce the schools to accept and accommodate these children. It can be concluded that the country's constitution is not being implemented and children with disabilities are denied their education rights in O/preschool classes. The recommendations are government should be enforcing laws to force the schools to accept the children; special needs professionals be assigned in the schools; awareness be created to the society; and educators, counselors, and psychologists need to help the parents.

1 Introduction

1.1 Background of the Study

The "O" class program in Ethiopia (also commonly called early childhood education and care (ECCE) and synonymously known as preschool) is for children aged 5–6 years annexed in all government primary school systems and as kindergartens in private schools (Ministry of Education (MoE), 2013). And here after only ECCE and preschools will be used interchangeably. Early life experiences are fundamental for children's physical, social, emotional, moral, and intellectual developments (MoE), 2010; UNESCO, 2015; Mulugeta, 2015).

Investing in ECCE would bring economic returns for societies and children, especially for those disadvantaged groups (Engle *et al*., 2011; Walker, Chang, Vera-Hernandez & Grantham-McGregor, 2011; Yoshikawa *et al*., 2013; All cited in Kim *et al*.,

* Corresponding Author; Email: peace4ujesus@gmail.com;
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2022). Children from disadvantaged backgrounds are still less likely to participate in preschool education and do not have the same opportunity to progress in the early years of primary school (Kim *et al*., 2022).

Historically, ECCE in Ethiopia was developed and run by foreign missionaries, but more recently under the Education Sector Development Programs (ESDPS), beginning to develop its own policies and in 2015, under the five-year ESDP-III plan, ECCE given the policy support needed by the government (Mulugeta, 2015). ECCE received much focus in ESDP IV (2010 to 2014/15), which provides a useful analysis of lessons learnt from ESDP III (2005/06 to 2010/11) (MoE, 2005). It has placed mainly two key outcome targets to increase gross enrollment rate and to establish preschool classes in all rural and urban primary school compounds (MoE, 2010:29, as cited in Mulugeta, 2015; MoE, 2017; Zewdie & Tefera, 2015; Tefera, 2018). MoE has coordinated different minister offices (e.g. Ministry of Health, Ministry of Women's Affairs) to be responsible in playing their roles in accessibility and quality of ECCE in the country (Hirpa, 2021). Hence, witnessed a surge in pre-school school enrolment (Kim *et al*., 2022) and is aspiring to address exclusive practices to promote ECCE for CWDs (Hirpa, 2021).

However, the public investment is currently very low in the country and left for the private sector to dominate by fee charging kindergartens in which children from low socioeconomic backgrounds to having little opportunity to attend (Woldehanna, 2011) making inequalities of enrollment accessing the schools remain unresolved (Kim *et al*., 2022, p. 112; African Child Policy Forum, 2021).

1.2 Statement of the Problem

Across Ethiopia, learning outcomes in primary school are far below expected levels (American Institutes for Research, 2016; National Educational Assessment and Examinations Agency, 2016; All cited in Kim *et al*., 2022) and children from disadvantaged disability backgrounds are being negatively impacted the most (Iyer *et al*., 2020; Rolleston *et al*., 2013; All cited in Kim *et al*., 2022). There is a growing desire to address educational needs of CWDs (Federal Democratic Republic of Ethiopia (FDRE), 1991; FDRE, 1996; MoE, 1994; All cited in Hirpa, 2021). However, there is a dearth of literature on studies that focus CWDs inclusiveness in ECCE appears to be limited (Admas, 2016; Zewdie *et al*., 2016).

Early work on the exclusion of CWDs in ECCE was conducted by Hirpa (2021) and revealed that parents, ECE centers, and government bodies were all involved in the exclusion of CWDs from ECCE. More specifically, socio-cultural barriers, absences of early identification of children with special needs, scarcity of resources, and reluctances of government to enforce schools to accept CWDs were contributing exclusion factors. The study, however, did not examine whether parents of CWDs were supporting their children when they did not participate in formal education. The current study attempted to address the gap of research in the area. The following research questions were addressed to help with the purpose:

1. What are the lived experiences of parents of children with disabilities (PCWDs) who attempted to enroll their children in ECCE programs?
2. How do school principals (SPs), education bureau manager (EBM), education bureau special needs expert (EBSNE), and special needs education teachers (SNETs) explain the preschool access challenges of CWDs?
3. How do school principals (SPs), education bureau manager (EBM), education bureau special needs expert (EBSNE), and special needs education teachers (SNETs) explain their plans to change the situation?
4. How do parents support their CWDs to compensate for the lack of access opportunities from preschools?

2 Review of Related Literature

2.1 Challenges of ECCE in the country

It should be conceived that the study is the first of its kind and it was very difficult to get ample empirical evidence in relation to the major variables raised in the study. In other words, the findings of the current study will sufficiently serve to provide empirical evidence on the issue both for national and international concerned individuals in the area.

Kim *et al*. (2022) highlighted the persistence inequalities in pre-school access between advantaged and disadvantaged regions of the country following educational reforms in Ethiopia. Girls are less likely to attend school. Children (those with literate parents, have access to reading materials at home, and live in urban areas) are more likely to participate in preschools both before and after the reform.

Kim *et al*. (2022) found overall quality of preschool education in Ethiopia is low. Hirpa (2021) also found pre-school education in the country is characterized by absence of follow-up and awareness creations, government's lack of commitment to monitoring the ECCE centers, and low quality in terms of trained manpower, equipment, and other quality indicators. Lack of collaboration among stakeholders, infrastructure, mandatory inclusive policy and facilitators, misconception of inclusive education, and poor allocation of finance have contributed to the exclusion of CWDs (Mulugeta, 2015; Hirpa, 2021). Besides, negative attitude towards CWDs led them to stigma and exclusion from the system (UNICEF, 2013).

2.2 Parents' involvement and challenges

Parental involvement takes good parenting in the home, provision of a secure and stable environment, intellectual stimulation, parent-child discussion, good models of constructive social and educational values and high aspirations relating to personal fulfillment, and good citizenship (Desforges & Abouchaar, 2003). Yet, they are hesitant to involve their CWDs in the immediate community as they are seen to bring shame upon the family (Schiemer, 2017).

In the country, disability (Teferra, 2005) and mental illness (Patel, 1995) are attributed to supernatural phenomena such as curses, spells, being possessed by evil spirits, and punishment by Supreme Being (e.g. God, Allah, Waqa) for sins that prevents PCWDs to engage in the education of their children's. As a result, PCWDs experience depression, anxiety, and psychological distress (Papadopoulos *et al*., 2019). For example, Tekola, *et al*. (2020) found the perceived lack of social support and acceptance made some parents vulnerable to internalized stigma.

Additionally, parental involvement also be impacted by parents' negative school experience, educational background, and the demand of time, work, house chores and many other commitments (LaRocque *et al*., 2011; Pena, 2000; Lee &Bowen, 2006; Jordan *et al*., 2001; Potvin *et al*., 1999; Crozier, 1999; Baeck, 2010; All cited in Jafarov, 2015).

2.3 Theories of Early Childhood Care and Education in O/Preschool Classes

Attachment theory of Ainsworth and Bowlby (1991) emphasizes amicable relationship of a child and his/her mother. In this study, a close investigation was made to see the relationship of CWDs with their mothers. What was exclusively discussed in the efforts of mothers what they do at home to help their children the missed opportunities at schools.

Bronfenbrenner's theory of ecological development (1979) is all about the influence and impact of all types of the environment starting from home systems to outside bigger systems. So, the current study sees the home environment of CWDs, parents' efforts, neighborhoods, and the practical implementations of policies whether they are impacting access to education of O/preschool to CWDs.

Vygotsky's sociocultural theory of cognitive development (1978) sees the influence of culture and interaction of a child with his parents and his other immediate environments. In this study, effort was made to see the perception and attitude culture of teachers, neighbors, peers, and relatives to the education of CWDs and it also sees how CWDs are interacting with other children in their neighborhoods. It also investigates these perceptions,

attitudes, and interactions whether they are positively or negatively impacting the development of CWDs of this study.

3 Methods and Materials

3.1 Design of the study and approach

Phenomenological research is a design of inquiry in describing the lived experiences of individuals about a phenomenon as described by participants (Creswell, 2014; Chenail, 2011; Creswell, 2013). There are two forms namely transcendental and hermeneutical. Where the first unlike the second involves no subjectivity and personal interpretation of meanings by researchers stemming from collecting data instead researchers are expected to reveal things as they appear in the data (Creswell & Poth, 2018; Creswell, 2013). Thus, this study followed transcendental phenomenological design with qualitative research approach.

3.2 Study Area

The study was conducted in Gondar City, Ethiopia. The city is located 738 kilometers north of the capital city Addis Ababa. Gondar has twenty districts and six sub-cities. In the city there are 51 primary schools, 29 and 22 public and private schools respectively. From 29 public primary schools there are 2 special unit classes and 3 integrated schools. From the 22 private schools only 3 primary schools have kindergarten programs.

3.3 Population and sampling techniques

In the study area there were 1 Education Bureau Manager (EBM), 1 Education Bureau Special Needs Expert (EBSNE), 51 School Principals (SPs), 18 Special Needs Education Teachers (SNETs), and 50 PCWDs as populations. Hence, 1EBM, 1EBSNE, 8 SPs (5 from public and 3 from private), 5 SNETs (all from public as there were no SNETs in private schools), 8 PCWDs were taken through comprehensive, comprehensive, purposive, purposive, and snowball sampling techniques respectively. Parents were great source in getting other parents who were potential participants of this study.

3.4 Data collection instruments

Interviews and focus group discussion (FGD) were used to collect data in this study. The semi-structured interview guide was used to interview EBM (using 3 interview items), EBSNE (using 3 interview items), SP (using 3 interview items), SNET (using 3 interview items), and PCWDs (using 17 interview items) respectively. Interview with all interviewees lasted 40-50 minutes, while the FGDs lasted 1:00 to 1:30 hours. FGD was used for PCWDs. There were two groups of FGD having 9 and 8 members in each. Three discussion questions were presented to the discussants. As Bara (2016) stated that the whole purpose of the FGD was to obtain well discussed and versatile data to cross-check the data obtained through other instruments, in our case semi-structured interview guide. The data collection was done from 3 May to 30 June 2022.

Cellphone voice recorder and notebook as hand written notes were used to collect data. The instruments were prepared in English and were translated into Amharic language. After data collection, the data was transcribed into Amharic and translated into English language.

In relation to ethical approval, review and/or approval by an ethics committee were not needed for this study. Because it was a small case study free of risk and was waived by Institutional Review Board (IRB) of University of Gondar, UoG as indicated in the attached ethical waiver. As for informed consent, all respondents provided informed consent to participate in this study.

3.5 Methods of Data Analysis and Ethics

Data were analyzed using thematic analysis, using a combination of inductive ('bottom-up') through inductive coding analysis and deductive ('top down') approaches (Braun and Clarke, 2006:12). Following translation, we used Braun and Clarke's [40] approach to reflexive qualitative thematic analysis, first familiarizing ourselves with the data before generating initial codes, searching for themes, reviewing and defining themes, and finally writing up the report. Consent, anonymity, and confidentiality measures were taken, and the findings were made only for academic purposes.

4 Results

4.1 Demographic characteristics

Table 1: Demographic characteristics of PWDS

No.	Code	Sex	Age	Marital Status	Employment	Family size	Monthly income	Another disability in family member
1	P1	Female	35	Married	Employed	4	*5700 Birr	No
2	P2	Female	35	Married	Unemployed	4	I don't have	No
3	P3	Female	35	Married	Unemployed	3	I don't have	Yes
4	P4	Female	30	Divorced	Employed	3	*6000 Birr	No
5	P5	Female	39	Married	Merchant	5	Unknown	No
6	P6	Female	40	Divorced	Unemployed	2	I don't have	No
7	P7	Female	35	Married	Unemployed	3	I don't have	Yes
8	P8	Female	40	Divorced	Merchant	4	Unknown	No

*1000 Birr is equivalent to 1.89US$

As indicated in the above table 1, sex, age, marital status, and there is no another child in the family member with disability, seem for PCWDs favorable environment in helping their children with disabilities (CWDs) at home. However, the employment status, number of family, and monthly income would be definitely a big challenge. For example, most family members included in this study have limited or no income 6000 Birr income is equivalent to 113.21 USD.

Table 2: Demographic characteristics of CWDs

No.	Code	Sex	Age	Type of disability	Onset of disability	Cause of disability
1	P1 child	M	7	Deaf	Before birth	Unknown
2	P2 child	F	8	Intellectual limitation	Before birth	Unknown
3	P3 child	M	7	Autism	Before birth	Unknown
4	P4 child	M	5	Blind	After birth	Trachoma
5	P5 child	M	6	Autism	Before birth	Unknown
6	P6 child	F	7	Motor disabilities and HIV/AIDs	After birth	Accident
7	P7 child	M	8	Autism	Before birth	Genetic
8	P8 child	F	7	Visual impairment	After birth	Glaucoma

As can be seen in the above table 2, most of the CWDs are males with varied developmental disorders.

Table 3: Demographic characteristics of SP

No.	Code	Sex	Age	Academic qualification	Work experience
1	SP1	M	42	Bachelor Degree	18
2	SP2	F	43	Bachelor Degree	18
3	SP3	F	32	Bachelor Degree	10
4	SP4	F	40	Bachelor Degree	15
5	SP5	M	45	Bachelor Degree	20
6	SP6	F	40	Bachelor Degree	15
7	SP7	M	43	Bachelor Degree	18
8	SP8	M	65	Bachelor Degree	40

As shown in the above table 3, most SPs seem to have adequate experience in teaching profession by simple look of their ages for example and taking their work experience particularly. It is possible therefore to assume they would give adequate data for the study.

Table 4: Demographic Information of SNETs

No.	Code	Sex	Age	Academic qualification	Work experience
1	SNET1	M	45	Masters Degree	15
2	SNET2	F	40	Masters Degree	15
3	SNET4	F	35	Degree	13
4	SNET5	F	36	Degree	14
5	SNET6	F	30	Degree	8

As shown in the above table 4, most SNETs are females, and they have degrees few up to MA degree level and their work experience is encouraging too. Though they are not directly involved in teaching in class they will be giving adequate data from what they observe and supervise.

Table 5: Demographic characteristics of EBM and EBSNE

No.	Code	Sex	Age	Academic qualification	Work exp.
1	EBM	M	45	Degree	20
2	EBSNE	M	28	Degree	6

As indicated in the above table 5 except the EBM, EBSNE has small work experience showing one fact among others that Gondar City Administration Education Bureau did not have EBSNE expert before and its experience with this regard is less than a decade. By implication it means, the education of CWDs have been led not by experts in special needs and inclusive education.

4.2 PCWDs lived experiences to enroll their CWDs in preschools

Parents were asked, "*Did you make an effort to enroll your CWD in preschool classes and what was the schools' responses*?" All parents but one (P1) reported refusals from the schools to accept their children. P1 was the only person whose son was rejected soon after he was enrolled. For their refusal not to enroll CWDs, preschools claimed the following factors.

Lack of communication, inappropriate classroom management, and bullying at neighborhood;

> I have tried to take my child to school. One school has accepted him, but he quit after two days. The teachers claimed that they were unable to teach my child because he was unable to communicate with his classmates. They said, "*Your child is very disruptive, he does not have a good relationship with children, he hurts and scratches other children, so we do not want to allow your child to continue in our school*." This happened to my child because I don't let him go out from home and play with his friends that they laughed at him and my neighbors stigmatized him (P1).

Schools are unprepared and society does not accept CWDs enrollment too;

> The negative attitude of society is the biggest challenge. For example, they say, "*Why are you wasting your time on your child? What hope does he have, other than wasting your time and money*?" The community's view that CWDs like mine shouldn't go to schools made me worry. The reasons schools provide why they are not accepting is that the schools are unsuitable for a child like mine. The physical environment of the school's is unsuitable, and they do not have professionals (P3).
>
> Schools say they will never accept such children that they are unable to teach and take care of. They say they do not have first aid treatment, clinic, comfortable toilets, suitable teaching room, and lack of expertise. Schools believe CWDs impose too much pressure on regular teachers (P4).

Lack of professionals in special needs education;

> School principals tell me my child is very childish, and he will disturb the class that they do not have teachers trained in special needs education to manage his behavior (P5).

Absence of day care centers and special services;

> My daughter is with wheelchair, and she is HIV/AIDs positive The schools say, "*Your child needs a lot of care, such as toilets and ramps. Your child needs to be taken care of privately that the school cannot do*" (P6).

Parents were asked, "*When the preschool refuse to enroll your child where do you report in terms of reporting to concerned government offices*?" Half of the parents (P1, P3, P5, and P7) reported the refusals to government offices. The officials, for example district education offices, the city's education bureau give them promise but, none of them are practical.

One of the responses on reporting parents;

> I tried to report to the Education bureau; they said that they will tell the schools to enroll my child. But when I go to school they tell me as they were not told by the education bureau and to my dismay, they tell me they will never do it in the future whatever the education bureau says (P3).

One of the responses from a parent who did not report the refusal;

> I don't know where to go except to take my child home. If I go to the education bureau, "*What kind of response can they give me*?" It is the same with the schools (P7).

The FGD discussion by parents highlighted how much officials are not concerned about access to ECCE for CWDs.

> We are raising our voices to schools and education bureau, but there is nobody that can feel us. When we go and ask the concerned town officials both in political and education wings, they say they cannot do anything. Parent-teacher unions of each school tell us to wait patiently until they report to concerned bodies, but there is no solution yet. Our children are out of school. They are missing what they should know at their age. Consequently, delaying mental development, less social relations, having misbehaviors, loneliness, and their activities are far away from their peers (FGD discussants).

4.3 SPs, EBSNE, and SNETs, and EBM lived experiences the preschool access challenges towards CWDs and their efforts to change the situation

SPs, EBSNE, SNET, and EBM were asked, "*What do you think the challenges to enroll CWDs in the schools are*?" All the respondents mentioned various factors including lack of teaching material, classrooms, special needs education professionals, government support, MoE's support in deploying teaching materials, budget, and enforcing legislation for public and private schools to accept CWDs; and unwillingness by private schools that they fear they will lose customers if they accept CWDs.

> Our intake capacity is very less. We have a shortage of special needs teachers in our school. We don't have enough materials in our kindergarten. For instance, we don't have a book to teach students with hearing impairment; materials like slate and styles for students with visual impairment; and teaching aids for students with intellectual limitations (SP3).
>
> The big problem not to include CWDs in kindergartens is there is no enforcing legislation. There is simply a guideline and because of this we can't force private schools to accept CWDs. We have budget problem to expand public schools. Even though we want to give trainings for the society, we can't get enough trainers in a special needs education field (EBM).

SP, EBSNE SNETs, and EBM were asked, "*Do you force preschools to enroll CWDs*?" From the responses of respondents several findings were found, yet with one common central point, there is blame shifting, all leading down to one point indicating there is no enrollment opportunity for CWDs in the pre-schools at all. When we see the response of SPs, except SP2 and SP5 the others did not report to Gondar City Education Bureau for any support. However, all participants shared similar

perspective that whether or not they reported they felt that nothing would change.

On those reporting SPs;

> We did not stop our influence. Still we are asking the city's education bureau to build or arrange classrooms to enroll CWDs in our preschools. However, the education bureau keeps refusing attributing to budget problems and lack of special needs education teachers to hire (SP2).

On those not reporting;

> I didn't report to the city's education bureau because I know there will never be response (SP8).

Worrisome findings were found from the response SNETs and EBSNE.

> I have tried my best to ensure the necessity of special needs education, but no one gives emphasis on it. Both the school and the education bureau are not giving emphasis to the expected level. As an expert I give several suggestions to the school principals and education bureau. Such as giving training for regular teachers in special needs education, assigning small budget for the training, and engaging stakeholders' contribution. But none of them take my advice seriously and it is quite painful as a professional for me to see CWDs being refused to get access to education.

> The education authorities do not have enforcing legislation for schools to enroll CWDs and employ teachers of special needs education. Besides, the curriculum has major problems since it does not allow CWDs to learn with other children without (EBSNE).

The response from EBM seems to be a concluding remark indicating the effort and the reports by SPs, SNETs, and EBSNE bear no fruit and the chance for enrollment by CWDs in the preschools is temporary closed if not permanently. He stated that;

> We sent messages to preschools to accept CWDs. But they claim many factors for not doing so. Even some private schools claim that they would be in crisis if CWDs join their schools. We, as an education bureau, could not solve these problems since it take many years.

4.4 Parents lived practices what they do to their CWDs in and outside home to compensate the lack of access opportunities from preschool classes

Respondent parents were asked two basic questions, "*What do you do in and outside home to deliberately help your CWD to compensate what he/she might get in schools*?" And "*In your effort trying to help your child in and outside home what are your challenges*?" From the responses four themes were found as part of their efforts and challenges. These are efforts and challenges in cognitive, social interaction, motor skills, and behavioral developments of their CWDs. Results are therefore presented accordingly.

Cognitive Development

Half (P1, P3, P4, P8) of PCWDs reported not helping their children that much with the day to day academic activities such letter identifications, practicing writing, drawing, and telling stories. While the other half (P2, P5, P6, and P7) are trying somehow. In fact, all parents for their attempt and not in the area claim different challenging factors.

The challenges of parents who did not help their children included: workload, inability to buy books, and inability to communicate with their children;

> He learns from our actions. He could wear his clothes and keep his hygiene although I didn't teach him. Since I have a workload in the family, I don't teach my son at home. I spend my time at work when I return home, I am already tired. I spent the rest of my time by controlling my other child without disability. I never bought or borrowed books to teach my child. Since he couldn't learn at school, it is difficult for me to teach him at home. We couldn't understand each other. We communicate by informal sign language not by using the proper sign language which my son and I never have the signing skills (P1).

She is not but her brother, but she still feels she has to read special needs education books;

> I didn't teach him about house cleaning, food cooking, washing, folding and wearing clothes, and eating because of his disability. My son didn't learn these things easily. My son disturbs me. I have no patience but since my brother has a good relationship with him, he teaches him repeatedly. He reads tales to him, teaches him numbers, types of colors, kinds of objects, etc. However, I didn't buy books on special needs education that I didn't have knowledge about them and their use to teach my son. In the future, I will be happy if I know a special needs expert and get lessons from him/her (P3).

Work load but she still feels she needs books and contact special needs experts;

> It is difficult for me to work with a child who cannot see. But he can dress up. He wants to play with everything and toys. But he does not clean the house, wash dishes, or fold clothes. I don't study with my son that I don't have time, for example to read stories to him. I think blind children are taught in Braille and I don't know how I can teach him at home. I hope that when he is young, he will go to school and learn. I want to a special needs specialist to discuss though I don't know one (P4).

Those parents who are attempting:

Still needing support from others, yet the parents struggle with their little knowledge;

> I don't get support from anyone, not even from my family to raise my child. Though difficult I trained my daughter how to use a toilet, wear clothes, and wash her hands. It took me a long time to train my child to use the toilet that before she was defecting everywhere in the house. However, I have participated less in the learning activities of my daughter that I have poor knowledge of school system and lack of understanding of learning process itself. I am uneducated. I have never discussed the issue with special needs experts that I don't know where to get them (P2).

She is trying hard with her workload and still feels she needs books and contact special needs experts;

> I let my son know what he needs to know at home about important lessons. For example, numbers, Amharic and English letters, and stories. But I don't know where to find books and I don't read books because access to special needs education is very small in our area. I think the problem is that I don't consult a specialist because there are no special needs specialists, or they are not interested in consulting us and nor I couldn't find another expert (P5).

The FGD showed majority of respondents did not try to teach their children academics. Rather they involved their children in daily activities including teaching them how to dress, wash, and eat food. Almost all the respondents did not borrow, buy, and nor read special needs education books due to lack of money, knowledge, and donors. None of the families worked with special needs specialist, psychologists, counselors, or ECCE professionals.

Social interaction development

We found that all parents were restricting their children's social development; they prefer to keep their children mostly confined to home. When parents did take their children to outside the home, they reported experiencing a number of challenges due to their children's behavior and society's negative attitude towards the CWDs.

Except for church she does not allow her child to socialize;

> I did not support my son in his social skills development so that I did not give him permission or opportunity to play with other children without disability because the children beat him due to his behavior. I take him Church. But I didn't take him to wedding parties or any place that has social interaction. He disturbs me and he gets stressed and angry. My son doesn't go to recreation centers because he could not stay for longer time. He gets nervous and he cries whenever he sees strange faces. Therefore, I didn't take him to recreation centers (P1).

Fear of further abuse, the badmouthing of people in contact, curse, and devil;

> The community's attitude is a challenge for example my neighbors would embarrass me by saying, "*God cursed your child! What sins have you committed*?!" In fact, some individuals don't allow their children to join my son. They associate it with devil they tell their child, "*The devil who hit that child will hit you*." I never let my daughter participate in events like playing in lodges, cafeteria, and concerts. I am afraid of the community's sarcasm and sadness (P2).

The society needs CWDs to be at home;

> There is a bad attitude towards me and my son. People often remark my child is a burden to me. I took my child to a place where there are few people. I do not take him to a place where there are many people because when they stare at him, I feel unhappy. "*Do they feel sad or are they joking on my child? question frequently comes to my mind*." I have tried to send him to Sunday church school. But some of them have ignored him (P3).

Like others relatives also hold the same attitude;

> Even my family could not understand and help me and my son. There are those who say, "*Why you take him out in front of people*?" This time I will be so embarrassed that I am not taking my child out of the house (P4).

Fear of COVID 19/ Corna-virus;

> I don't allow my son to join others because I am afraid that he will get flu and corona virus when he meets the neighborhood kids. Because my child doesn't know what corona is and he can't take care of himself (P5).

The FGD findings confirmed the same reality that parents are being hampered from their efforts to ensure healthy social development of their CWDs mainly by negative attitude of the society. The society does not allow CWDs to join their CWODs to do different activities together.

Motor Skills Development

From the responses of all parent participants, it was understood that the motor skills development of CWDs is restricted due to a number of factors.

Locked inside home and offering specific play materials only;

> My son plays with his friends inside our compound. But I never allowed him to go outside because he might have conflict with them since they couldn't handle his behavior. I do not allow my child to use different toys. Since my child has hearing impairment toys that work with electrical power might damage him. I only allow him toys like cars and cards. In addition, sharp toys and heavy toys might harm him and I don't allow him to use them (P1).

Need her child to play physical exercise but there is no one to coach;

> I allow him to do physical exercise but there is no one to guide him. I have no time to teach and control him (P8).

Inability to match with peers, lack of money, and selection of game types to avoid further injury;

> My daughter plays with her peers in the neighborhood. But she couldn't agree with them since they have fast minds while she has slow. I allowed my daughter to play by toys and balls. I monitored her not to play with electric and sharp toys. I have bought few toys for my daughter. I couldn't buy all she wanted because I have an economic problem. Frankly speaking, I never think that she must do some physical exercise. I have no any reason except she might go far and get lost (P2).

Behavioral Developments

Unlike the other three themes, all respondent parents in both interview and FGD were found struggling as they are unable to help their children in behavioral development. The parents disparately need professional support from counselors.

Unable to consult psychologists;

> I want to consult an expert about my child's behavioral change and development. But, I don't know any psychologists and I have no access to meet them (P1).

> I never met a psychologist and discussed the behavior and self-confidence of my daughter.

> I never gave her special training or follow up to develop her self-control and nor do I know how to train her (P2).

Very frustrated as a result of lack of knowledge on behavior management;

> I don't know how to get a psychologist or expert, it's not common in our area, and experts are not available. I try to entertain my child so that he doesn't feel lonely. I didn't create adequate lessons for him to protect and control himself. Also, I didn't give him special support and training to control his frustration and anger. When I say no, he gets very angry and hits my little boy. I get very upset when I see this. I am worried how long it will continue like this? (P4).

> I teach him to have a positive relationship with his peers, but he doesn't understand because the society doesn't allow their children play with my son. They don't know what friendship is. As a result, he gets frustrated. I can't control his frustration, and his self-confidence doesn't develop either (P5).

5 Discussions

Though PCWDs have tried hard to enroll their children in preschools many were turned away by the schools. The schools rejected admitting CWDs for a range of factors including lack of accessible materials and trained special needs education professionals, inaccessible school environments. Above all, PCWDs, SPs, SNETs, EBSNE, and EBM described a lack of commitment by government to enforce laws making both public and private preschools and kindergartens to enroll CWDS. Which were reported by previous studies (see, Rossiter, Hagos, Rose, Teferra & Wolde- hanna, 2018 ; Teferra & Hagos, 2016 ; Woodhead, Rossiter, Dawes & Pankhurst, 2017; All cited in Kim *et al*., 2022; Tigstu, 2013) who indicated lack of trained facilitators/teachers; limited availability of accessible curriculum and teacher guides; a lack of adequate classroom facilities; insufficient developmentally-appropriate learning materials and playgrounds; and insufficient pay for teachers; lack of collaboration among stakeholders of education; misconception of inclusive education; poor allocation of finance; and poor school infrastructure and lack of mandatory inclusive policy.

The above finding is the re-confirmation that children from disadvantaged backgrounds are less likely to participate in ECCE and thus do not have the same opportunity to progress in the early years of primary school (Kim *et al*., 2022). Despite considerable growth in primary enrolment and a narrowing of the gender gap, inequalities in access remain for CWDs in the country (Woldehanna et.al, 2011; Ministry of Edu- cation, 2017; Zewdie & Tefera, 2015; Tefera, 2018). We found that the ECCE centers and government bodies were involved in the exclusion process. A finding similar to Herpa (2021) who depicted socio-cultural barriers, scarcity of resources, and reluctances of government were factors for the exclusion of CWDs from ECCE. It seems that in the country ECCE is not accessible for CWDs (Admas, 2016; Zewdie *et al*., 2016) despite the vital role the ECE plays in their development.

Equally disturbing finding was the private kindergarten schools are afraid of accepting CWDs because these schools worried it would be deterring parents of children without disabilities from sending their children. Making them lose their profit. This is the consistent finding with Woldehanna (2011) who found out that the public investment is currently very low in the country and left for the private sector dominated by fee charging kindergartens in which children from low socioeconomic background do have very little opportunity to attend and consequently hundreds and thousands CWDs in Ethiopia are unable to access inclusive education (African Child Policy Forum, 2011).

Furthermore, the persistent negative attitude of the society including close relatives, towards PCWDs is contributing to these parents to be stigmatized and discriminated. Traditionally, disability (Teferra, 2005) and mental illness (Patel, 1995) are attributed to supernatural phenomena such as curses, spells, being possessed by evil spirits and punishment by Supreme Being (e.g. God, Allah, Waqa) for sins which is quite challenge for parent to engage in the education of their CWDs. Several quantitative studies indicate that there is an association between stigma and caregivers' mental health, including

depression, anxiety and psychological distress (see Papadopoulos *et al*., 2019). Tekola *et al* (2020) explore perceptions and experiences of stigma among parents of children with developmental disability in Ethiopia and found the perceived lack of social support and acceptance made some parents vulnerable to internalized stigma.

Additionally, the current study came up with consistent finding that socioeconomic condition and parents' negative school experience; parents' educational background; the demand on parents such as time, work, house chores, and many other commitments impede their preference to be involved in their children's education (LaRocque *et al*., 2011; Pena, 2000; Lee &Bowen, 2006; Jordan *et al*., 2001; Potvin *et al*., 1999; Crozier, 1999; Baeck, 2010; All cited in Jafarov, 2015). Parents are often hesitant to involve their CWD in the immediate community as they are seen to bring shame upon the family (Schiemer, 2017).

When the findings of the current study is seen in terms of the theories mentioned in the reviews of related literature, it will have the following interpretations. Attachment theory of Ainsworth and Bowlby (1991) emphasizes amicable relationship between a child and his/her mother. In this study mothers were found to be quite attached to their children. However, the attachments of mothers were hindered due to lack of appropriate communication and lack of knowledge of how to treat children. They needed books and professionals that orient them properly to have knowledge and skills to deliver appropriate care and education to their children.

Bronfenbrenner's theory of ecological development (1979) is all about the influence and impact of all types of the environment starting from home systems to outside bigger systems. In this study it was found that the home environment of CWDs, parents' efforts, neighbors, and the practical implementations of policies to attend O/pre- school classes were not in favor of CWDs.

Vygotsky's sociocultural theory of cognitive development (1978) sees the influence of culture and interaction of a child with his/her parents and his other immediate environments. In this study, it was found that the perception and attitude culture of schools, teachers, neighbors, peers, and relatives to the education of CWDs was not positive. CWDs are less interacting with other children in their neighborhoods. Possible to say, the lack of interaction of CWDs might negatively impact their future cognitive, social, and cultural developments unless urgent and immediate government intervention is made.

6 Conclusion and Recommendations

Though the country's constitution and the other international laws and proclamations ratified in the constitution advocate CWDs need to have access to nearby regular schools we provide evidence that they are not being implemented.

To change the exclusive practice of both public and private schools which do not allow CWDs to enroll; SPs, EBM, EBSNE, and SNETs have immensely and frequently attempted to curb the situation; however, all were not having a decisive power to realize their claims as the situation demands urgent and immediate intervention of government to enforcing schools to accepts CWDs in to their school systems.

PCWDs have knocked at the door of both public and private schools to open their doors to allow their CWDs to attend their classrooms. However, the schools have tightly closed their doors and rejected the claims of education rights and benefits of PCWDs and their children. This situation is a paradox and unacceptable practice of the schools found in the soils of a country where it has a constitution and is signatory of international laws and declarations, clearly indicating schools should be open and inclusive to all irrespective of differences.

The recommendation is therefore, the government should have enforcing laws to force both public and private preschools to accept CWDs; assign special needs education professionals; PCWDs should be made to have access to trainings on how to homeschool their children and get access to special needs education books; awareness training for the society has to be made to show positive attitude towards the education of CWDs; and special need educators, counselors, and psychologists need to spend their free time in supporting PCWDs to facilitate, help,

and strengthen, and sustain the efforts of helping their CWDs.

Contributions of Authors

Dr. Tadessse Abera Tedla and Mrs. Zemenay Awulew Enyew have contributed in:

- The conception or design of the work; or the acquisition, analysis, or interpretation of data for the work; AND
- Drafting the work or reviewing it critically for important intellectual content; AND
- Final approval of the version to be published; AND
- Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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Examining Teachers' and Students' Beliefs, Practices, and Challenges in Utilizing Short Stories in Reading Classes: A Case Study of Selected Secondary Schools in Gedeo Zone, Ethiopia

Tsedalech Namaga[1,*] **and Firew Bogale**[1]

[1]Department of English Language and Literature, Dilla University; Ethiopia

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Abstract

This research aimed to examine teachers' practices, beliefs, and challenges in utilizing short stories in reading classes in selected secondary schools in Gede'o Zone, Ethiopia. Using both qualitative and quantitative approaches with a descriptive design, the study involved 250 students and 12 English teachers. Data was collected through questionnaires, semi-structured interviews, and classroom observations. The results reveal that both teachers and students have a positive view of the educational value of short stories. Teachers treasure the stories for their readability, brevity, and the fact that they raise students' self-awareness of numerous different modes of writing, cultures, and perspectives and essentially enrich students' vocabulary. Nonetheless, a big difference exists between students' preferences for learning and the methods used to deliver content. Bridging this gap could enhance the outcomes of language learning. Teachers have also noticed that students' interest and comprehension are sometimes diminished by technical jargon in textbooks, which frequently exceeds their comprehension levels. Also, not much difference is observed when compared with the results of reading strategies, motivational methods, or in brainstorming sessions. If these issues are addressed, then the potential of short stories for being tools for learning a language is likely to be very much increased.

1 Introduction

Since the introduction of modern education in Ethiopia in 1941, English has been taught and learned as a foreign language. Initially, it was introduced as a subject starting from grade three, but by the 1940s, English became the medium of instruction in Ethiopian secondary schools. Currently, English is taught from elementary school onward and serves as the primary language of instruction in secondary and tertiary education. Its significance extends beyond the classroom, as English is the preferred language in international relations, science and technology, commerce, and trade.

Despite its prominence, many Ethiopian students face significant challenges in mastering English, particularly in developing reading comprehension skills. According to Nuttall (1996), immersion among native speakers is the most effective way to learn a foreign language; however, many Ethiopian students lack opportunities for such practice outside the classroom. This limitation underscores the importance of reading as a fundamental skill for mastering English. Proficient reading enables students to absorb information, enjoy literature, and navigate various aspects of modern life. Moreover, reading proficiency significantly influences

* Corresponding Author; Email: tsedalechnamaga@gmail.com;
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students' performance across other academic disciplines. Reading fosters mental development and enhances attention span among young learners.

Utilizing literary works in language education offers numerous advantages for English as a Foreign Language (EFL) students, particularly in areas such as language acquisition, self-motivation, critical thinking, and cultural awareness. Erkaya (2005) posits that engaging with literature cultivates critical thinking skills in students. Similarly, Lazar (1993) argues that exposure to literary texts provides memorable syntactical and lexical items while encouraging learners to make predictions, draw inferences, and analyze character motivations and plot developments.

Among various literary forms, the short story stands out as an engaging genre suitable for EFL classrooms. Its brevity and accessibility make it an ideal choice for reading classes, allowing students to work independently while catering to diverse interests. Furthermore, short stories can be effectively employed across different age groups and proficiency levels (Pardede, 2011). The role of short stories in enhancing reading comprehension has been acknowledged by numerous English Language Teaching (ELT) professionals over the years. A well-crafted narrative captivates students' attention and stimulates their imagination while fostering a desire to use the language. Thiyagarajan (2014) notes that reading short stories not only enhances reading skills but also nurtures imaginative thinking. Siahaan (2012) emphasizes that the context of a story including its events and characters invites active engagement with meaning-making processes, facilitating vocabulary acquisition without direct teacher intervention.

In Ethiopian secondary schools, where English serves as the medium of instruction, achieving high levels of English proficiency is essential for academic success. Reading skills are particularly vital; they enable students to maximize their educational experiences and are often regarded as the most critical macro skill for those learning English as a second or foreign language. However, many students struggle with reading comprehension, which hinders their overall academic performance.

As language teachers with experience instructing communicative English courses and reading skills for both pre-service and in-service trainees at various levels, we have observed that many students struggle with reading comprehension. For instance, at Dilla Secondary School, students frequently encounter difficulties when provided with reading materials. Leipzig (2001) highlights that reading poses challenges for EFL learners due to its multifaceted nature encompassing word recognition, comprehension, fluency, and motivation.

Research into the challenges faced by students in developing their reading skills reveals several contributing factors. Teshale (2015) found that students at Bonga College of Teachers Education lacked strategy-based processing skills such as reading for gist or specific information and guessing meanings from context. Additionally, low language proficiency among students and insufficient teacher commitment were identified as significant barriers to effective reading practices. Deribe (2019) examined grade six students in Addis Ababa and identified ineffective instructional methodologies and inadequate exposure to English as key issues affecting their reading abilities. Getachew (2018) pointed out that high phonological awareness problems and poor teaching methodologies contributed to student difficulties at Ethio National School in Addis Ababa.

While these studies highlight the challenges students face, they also underscore the potential of literary materials to address these issues. For instance, Haileul (2012) and Yenialem (2014) conducted experimental studies demonstrating that literary texts significantly enhance student interest in learning while improving linguistic and communicative competencies. Similarly, case studies by Murat (2005) and Ahmad (2014) revealed that incorporating literary materials fosters language acquisition.

Despite these findings, , there remains a significant gap in research concerning teachers' and students' practices, beliefs, and challenges associated with utilizing short stories in reading classes, particularly at the secondary school level in Ethiopia. This study aims to address this gap by investigating these dimensions within selected secondary schools in

Gede'o Zone, Ethiopia. Specifically, this research seeks to answer the following questions:

- What are EFL teachers' beliefs regarding the use of short stories in reading classes?
- Do EFL teachers implement strategies to teach reading skills through short stories effectively?
- What challenges do teachers encounter when integrating short stories into their teaching practices?

By addressing these questions, this study aims to provide valuable insights into the role of short stories in improving reading comprehension among secondary school students in Ethiopia. This research has the potential to inform teaching practices and contribute to the development of more effective reading instruction strategies in EFL contexts.

2 Research Design and Methodology

This study adopted a descriptive research design, employing both qualitative and quantitative methodologies to gather comprehensive data on English language education. The research focused on four secondary schools-Bule, Yirgachefe, Wonago, and Dilla-selected through simple random sampling across four Woredas in the Gede'o Zone. A total of 262 participants were involved in the study, comprising Grade 9 English as a Foreign Language (EFL) students and EFL teachers.

Grade 9 students were specifically selected for this study as this grade represents a crucial stage in secondary education, marking the transition from basic to more advanced reading comprehension skills. From the total population of Grade 9 students in the selected schools, 250 students were randomly selected to ensure a representative sample. Additionally, 12 EFL teachers (three from each school) were purposively selected based on their experience teaching English at the grade 9 level.

To collect quantitative data on students believes and practices regarding the use of short stories in their English lessons, a questionnaire was administered to the Grade 9 EFL students. The survey aimed to assess three key areas: students' beliefs about the use of short stories in English classes, their practices in engaging with short stories during lessons, and the challenges they face when utilizing short stories as learning materials.

The survey was conducted within the classroom under the supervision of the researchers, who were available to assist students and ensure that the questions were understood clearly. To overcome any language barriers and ensure accurate responses, the questionnaire was translated into the Amharic language orally. This translation allowed all students, including those with limited English proficiency, to complete the questionnaire accurately, providing a more comprehensive understanding of their experiences.

Classroom observations were conducted using a standardized checklist to record practices and challenges during English language classes. This qualitative approach provided valuable insights into teaching practices, focusing on student engagement with the material and how teachers facilitated reading activities. The observations took place in a natural classroom setting, ensuring authentic data on both teaching practices and student engagement.

Semi-structured interviews were conducted with EFL teachers to gain a comprehensive understanding of their experiences, beliefs and challenges concerning the use of short stories in the classroom. These interviews provided an opportunity for teachers to offer detailed, open-ended responses, enabling a more in-depth exploration of their perspectives and instructional practices.

The quantitative data from the student surveys and classroom observations were analyzed using descriptive statistics, primarily focusing on percentages. The survey included closed-ended questions, utilizing a five-point Likert scale ranging from "always" to "never," to assess students' responses. Classroom observations included yes/no questions to capture specific behaviors and practices during the lessons. This approach facilitated a systematic analysis of both the students' responses and the observed teaching practices. The qualitative data from the teacher interviews were transcribed and analyzed through thematic analysis.

3 Results and discussion

3.1 Findings of students close ended questionnaire

The figures and tables provided below display the results obtained from the conducted questionnaire, which aimed to collect information on students' beliefs, practices in utilizing short stories, and the challenges encountered when integrating short stories into English class. The Likert scale employed in this study utilizes the following values: 5 = strongly agree, 4 = agree, 3 = no opinion, 2 = disagree, and 1 = strongly disagree.

As figure 1 indicates, a high population of the respondents (18.4%) and (45.2%) strongly agreed and agreed respectively that short stories introduce the learners to the sensation of learning something regarding real life. For the 2^{nd} item, (24.8%) strongly agreed while (45.2%) agreed that the presence of short tales in reading classes encourages students to read more. As is evidently reflected in item 3, (15.6%) responded that they strongly agree, while (54.0%) agreed that reading short stories exposes them to other lifestyles.

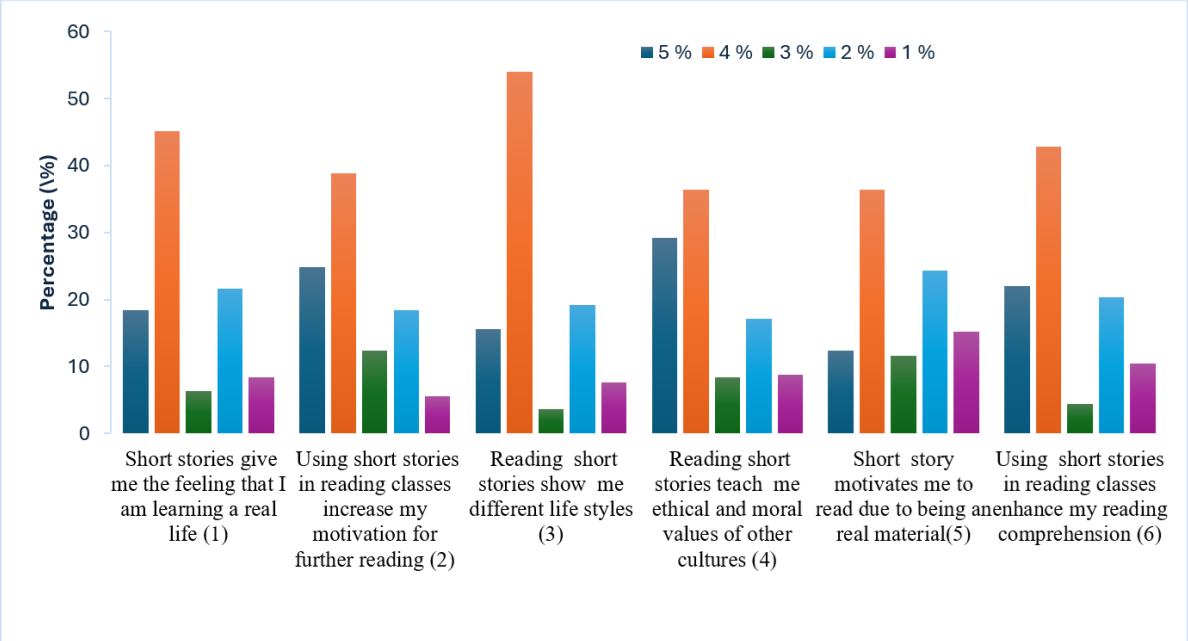

Figure 1: Students' beliefs on using short stories in English class

To question 4, it is revealed that (29.2%) of the respondents strongly agree, while (36.4%) agree that through short story reading, they acquire ethical and moral values of other cultures. As reported in the figure, (12.4%) and strongly agreed, and (36.4%) agreed that short stories are motivational reading materials as they are in real-life situations. For item 6 which says using short stories in my reading class enhances my reading comprehension (22.0%) agreed and (42.8%) strongly agreed.

Overall, data shows that short stories are generally welcomed as teaching materials of high value in the reading classroom. They are seen as devices that are functional tools in shaping the real-life experiences of individuals, boosting reading motivation, exposing learners to different lifestyles, and inculcating moral and ethical principles. Every short story has a start, middle, and end. Thus, this will motivate students to read or listen all the way through. For instance, knowing the story's climax or what will happen at the end (Erkaya, 2005). The use of short stories as motivational tools can assist language learners in honing and strengthening their skills (King, 2001). The findings also suggest that short stories offer a continuous, evolving engagement with language learning. Rather than being a one-time learning activity, short stories serve as a dynamic resource for developing students' language abilities over time. They create a relaxed environ-

ment where students feel more comfortable with the English language, increase their motivation to read, foster creativity, and accelerate reading comprehension skills. This ongoing engagement with short stories enhances their utility as an effective pedagogical tool in language acquisition.

Table 1: Students' Practices in Using Short Stories in English Classes

No.	Item	5	4	3	2	1	T
		%	%	%	%	%	%
1	My teacher teaches me reading comprehension and vocabulary using short stories.	-	24.0	8.8	67.2	-	100
2	My teacher teaches me reading strategies before I read short story.	-	22.0	4.0	43.2	30.8	100
3	My teacher motivates and engages me during short stories classes.	-	8.0	5.6	54.0	32.4	100
4	My teacher encourages me to tell the story orally to the class after reading the text.	-	20	-	49.2	30.8	100
5	My teacher uses short stories inside classrooms to develop all my language skills	7.6	13.6	4.8	60.0	14.0	100

As depicted in the presented table1, a significant majority of respondents, amounting to (67.2%), indicated that their teacher did not instruct them reading comprehension and vocabulary using short stories. Examining the data, many participants, specifically (43.2%), disagreed, and an additional (30.8%) strongly disagreed with item number 2, which states, "My teacher teaches me reading strategies before I read short stories." Turning to item 3 in the table, a prevailing sentiment emerged where most respondents, comprising (54%) and (32.4%), disagreed and strongly disagreed, respectively, with the statement, "My teacher motivates and engages me during short stories classes." Regarding item 4, designed to assess whether teachers encourage students to orally present the story to the class after reading the text. So, as indicated in Table 1, a notable proportion of respondents, comprising (49.2%) and (30.8%), expressed disagreement and strong disagreement, respectively. Focusing on item 5 in the table, which aimed to assess whether teachers utilize short stories in classrooms to develop all students' language skills, (60%) of respondents disagreed, and (14.0%) strongly disagreed. These findings underscore the importance of effective instructional strategies and engagement practices in teaching reading through short stories, as research highlights that motivation and explicit instruction in reading strategies are critical for developing students' comprehension and overall language skills (Guthrie and Wigfield, 2000; Baker, 2005).

Findings from Students' Challenges in Using Short Stories in English Classes

Table 2: Challenges faced by students in using short stories in English classes

No.	Item	5	4	3	2	1	T
		%	%	%	%	%	%
1	Most short story topics are culturally understandable .	-	5.6	-	71.6	22.8	100
2	I usually understand the information provided in the text.	-	28.0	-	72.0	-	100
3	The majority of short story reading materials in English promote indigenous knowledge.	13.2	25.6	3.2	42.0	16.0	100
4	The vocabulary in short stories is challenging to understand so I am having trouble learning them.	26.0	54.8	-	10.8	8.4	100

As item one in the above table reveals, many respondents, including (71.6%) and (22.8%) have been found to disagree and strongly disagree when asked whether the short story topics presented to them are culturally understandable. On item 2, which addresses whether they understood the information being given in the text or not, an overwhelming majority, a whopping (72.00%) do not understand. In item 3, (42%) and (16%) of the respondents disagreed that short story reading materials in English contribute to the promotion of indigenous knowledge. In item 4, most of the respondents (26%) and (54.8%) strongly agreed and agreed, respectively, that the content of short stories is challenging, hence not enabling them to comprehend and learn. These findings highlight challenges related to content comprehension, cultural relevance, and difficult vocabulary. Such barriers make it difficult for students to fully engage with the material. As previous research suggests, when students encounter unclear syntactic structures or unfamiliar vocabulary, their comprehension can be significantly hindered (Rawson, 2004; Harmer, 2002).

3.2 Findings of teachers Semi-structured interviews

The first question posed to the teachers was, "To what extent do you teach short stories in reading classes based on your teaching experience?" Most teachers indicated that they create a safe and supportive learning environment that encourages students to engage with short stories during reading classes. They strive to cultivate an interest in reading activities. However, they have observed that many students are unmotivated, attributing this lack of motivation to the difficulty of the texts being read. The teachers believe that addressing these comprehension challenges is essential for fostering a more positive attitude toward reading.

The second question attempted to find out what factors affect the teaching of reading using short stories. A majority of the teachers emphasized adequate resources and access to suitable short stories. Most of the teachers were unable to get a good collection of short stories that would enhance the teaching aims of the lesson. Also, some teachers mentioned that the short stories present within the textbooks contain very challenging vocabulary which eventually creates a problem for the students to fully grasp the story and even hinders their understanding of the material given. Research supports these findings, indicating that complex vocabulary can pose significant barriers to comprehension for students (Beck *et al*., 2013).

The third question aimed to gather insights from teachers based on their teaching experience, specifically regarding the relevance of incorporating short stories into the reading class. Many teachers stressed the fact of short stories' applicability in reading classes. They pointed out that the very size of short stories is a valuable issue for classrooms under strict time limits, as students may manage to accomplish them in just one class period. Besides, short stories helped to further improve understanding in literature since students got a lot of different types of genres and themes, which also exposed them to the writer's different styles, cultures as well as perspectives. Since the stories are shorter, direct discussions can be carried out in a classroom, which helps students to explore the characters, themes, and plots in detail. Moreover, teachers acknowledged that short stories are very useful in developing the language. Through stories, students are exposed to new words and sentence patterns, through a context that is far more comprehensible than otherwise occurs in developing language learning.

The fourth question sought input from teachers regarding the suitability of the short stories included in the textbook for students at their current proficiency levels. All participants replied that the short stories within the textbook are not appropriate material for students at this class level. The main issue here is that these short stories use terminology far too advanced for the students to be learning. The use of advanced, foreign terminology places the students at a disadvantage, because they experience trouble relating since the content becomes too difficult for them to understand and reason out for themselves. The latter highly affects the engagement of the students with the content as the vocabulary of the short stories is not within reach of the level of ability that the students are at. When students are engaged with something

not understood, it is going to throw off the flow of reading and reduce the comprehensibility of the whole story. That language barrier can provoke irritability, low directive behavior, and ultimately less success in the process of learning. Short story vocabulary should be of a level where students' proficiency enables them to interact with the material, allowing them to follow the story and derive meaning. For this very reason, it is pertinent to offer a more specialized selection of short stories at the student's level of vocabulary in order that the reading experience be enjoyable and successful.

In response to the last question, which asked whether teachers encourage their students to read short stories, many respondents said that they emphasize the value of short story reading for the improvement of reading comprehension. Despite this acknowledgement, all respondents stated they did not take any steps to actively promote students reading skill development.

3.3 Analysis of teachers' classroom observation

Classroom observations were conducted to examine the actual beliefs, practices, and challenges of teaching reading skills using short stories. Twelve English teachers participated in the study, each observed twice, resulting in a total of 24 hours of observation. A checklist was used to guide the observations and ensure a structured approach to data collection.

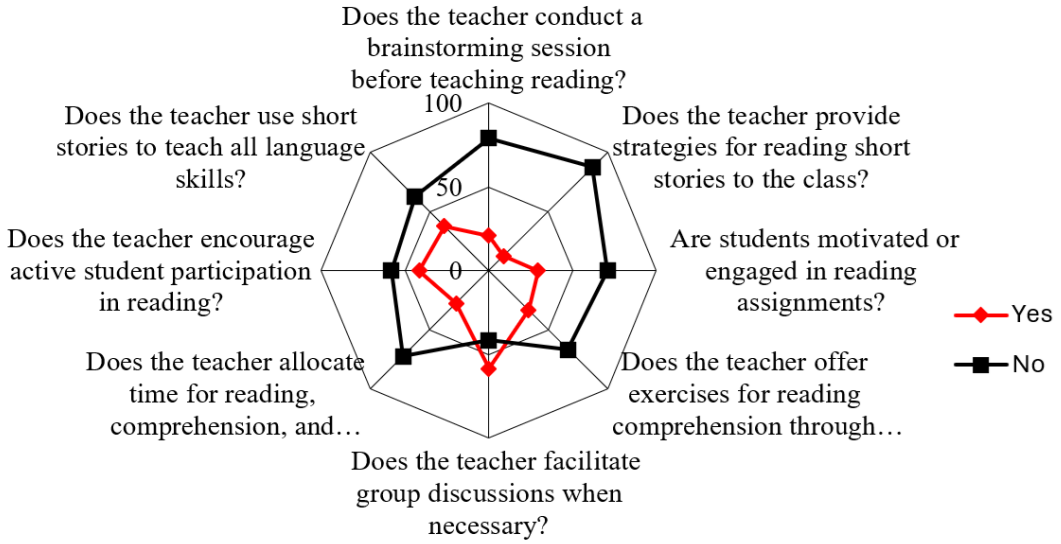

Figure 2: Classroom observation

The observation results reveal several areas for improvement in reading instruction. Notably, only 20.83% of teachers conduct brainstorming sessions before reading instruction, suggesting a missed opportunity to engage students' prior knowledge, which is crucial for effective comprehension. Additionally, a mere 12.5% of teachers provide strategies for reading short stories, potentially hindering students' critical text engagement and contributing to low motivation (Guthrie and Wigfield, 2000). Furthermore, only 33.33% of teachers offer comprehension exercises, meaning many students may lack adequate practice in this essential skill. While 58.33% of teachers facilitate group discussions, which enhance critical thinking and social learning, there remains room for increased opportunities. Alarmingly, only 27.59% of teachers allocate time for reading, comprehension, and reflection, which could impede deeper learning (Zwiers and Crawford, 2011). Moreover, 41.67% of teachers encourage active participation. Lastly, 37.5% of teachers utilize short stories to teach all language skills, indicating a need for broader integration of this effective practice (Hernandez *et al.*, 2014.

In general, the data suggests that current teaching practices involving short stories in reading classes are generally insufficient in several areas. A majority of observed classes do not use brainstorming sessions, strategies for reading short stories, and exercises for reading comprehension. Additionally, student motivation and engagement in reading assignments are low. Group discussions and active student participation are not widely facilitated, and there is a significant lack of time allocated for reading, comprehension, and reflection.

4 Conclusion

The information highlights a positive perception among students regarding the educational benefits of short stories. These advantages include improved motivation, creativity, fluency in the language, improved reading comprehension, and cultural insights. The results imply that short stories are useful teaching tools that enhance and involve students in their reading lessons. Teachers emphasized the value of short stories in reading classes as well, pointing out that they are concise, fit into busy schedules, and expose students to a variety of genres. They underlined how short stories, with their variety of vocabulary and sentence patterns, can help students gain a better grasp of writing styles, cultures, and points of view, as well as language ability.

The data analysis, however, shows a large disparity between the students' chosen learning strategies and the ways short tales are currently taught. Closing this gap could improve the process of learning a language. Diverse viewpoints were shared by participants about pre-reading activities, instructional techniques, motivation, language proficiency, peer interaction, diversity of content, and the function of short stories in reading comprehension.

Teachers have observed that short stories in textbooks often use technical language that exceeds their students' comprehension levels, creating a vocabulary gap that diminishes both motivation and understanding. This linguistic barrier can lead to a less effective learning process. Furthermore, despite teachers' efforts to use short stories to capture students' attention and engage them in reading activities, there is a general lack of enthusiasm among students. Research also indicates a potential deficiency in the incorporation of brainstorming sessions, reading strategies, and motivational techniques in teaching short stories. Addressing these gaps could significantly enhance the effectiveness of short stories as a tool for language learning.

To optimize short story use, it is essential to select texts that match students' proficiency levels and incorporate pre-reading activities to activate prior knowledge. A variety of instructional strategies, including group discussions and role-playing, should be used to engage students. Motivational techniques, such as offering choice in reading materials and linking stories to students' interests, can further enhance engagement. Peer interaction through collaborative activities can also improve comprehension and learning outcomes.

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Comparative Study on Psychological Characteristics and Academic Achievement of First Year Students across Research, Applied and Comprehensive Universities

Tarekegn Tadesse Gemeda [1,*] **and Tademe Zula Biramo** [1]

[1] Department of Psychology, IEBS, Dilla University

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Abstract

The objective of the study was to compare the psychological characteristics and academic achievement of first-year students enrolled in research, applied, and comprehensive universities. In doing so, the study included 436 first-year university students. A quantitative approach through a comparative cross-sectional survey design was applied. Three universities, one from each typology, were selected at random, and participants were selected by means of a multi-stage probability sampling procedure. Multivariate Analysis of Variance (MANOVA) was applied as the method of data analysis. The results demonstrated that a statistically significant difference was found, F (418, 2) = 11.151, p = .000, in academic achievement; F (418, 2) = 3.816, p = .023, in academic self-concept; and F(418, 2) = 5.863, p = .003, in anxiety-free learning. The mean score of the students from the research university outperformed that of the students from the applied university in academic achievement (p = .000), in academic self-concept (p = .024), and in anxiety-free learning (p = .003). On the other hand, a statistically significant difference was found in academic motivation, F (418, 2) = 4.639, p = .010, and in academic social skills, F (418, 2) = 5.731, p = .004. In that, students from the research university showed better academic motivation (p = .008) and academic social skills (p = .002), respectively. Thus, the study results imply that there should be speedy implementation of the differentiation process and the establishment of unique standards for each differentiated university in student placement, teaching-learning processes, and assessment procedures.

1 Introduction

Ethiopia has witnessed a significant increase in educational opportunities (Akalu, 2014; Bishaw & Melesse, 2017). As of 2020, there were 50 public higher education institutions (PHEIs) in the country. The historical and contextual expansion of these universities is ongoing, with some being senior institutions established several decades ago, some two decades ago, and others emerging just one and a half decades ago.

In 2021, the Ethiopian Ministry of Education (MoE) launched an ambitious new initiative to classify higher education institutions into four categories: 8 research, 15 applied, 21 comprehensive/general, and 3 specialized institutions. This classification aims to foster institutional distinctiveness and excellence (MOSHE, 2020). According to Van Vught *et al.* (2018), differentiation is a progressive and transformative step in the global education landscape. It enhances both global and international competitiveness by promoting horizontal (distinct institutional profiles and missions) and vertical (varied levels of study) diversification. Furthermore, differentiation enhances efficiency by encouraging institutions to capitalize on their unique strengths

* Corresponding Author; Email: tarekegntg@du.edu.et
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and by avoiding unnecessary duplication (Pizarro Milian *et al*., 2016; Weingarten & Deller, 2012).

Research universities are a crucial component of the tertiary education system, as they generate new knowledge, support national innovation systems, and train professionals, specialists, scientists, and researchers required by the economy (World Bank, 2011). Research universities worldwide, including those in the United States and India, have significantly contributed to knowledge creation, innovation, economic growth, human capital development, societal well-being, and overall quality of life (Tripp *et al*., 2018). Atkinson and Blanpied (2008) also argue that U.S. research universities are key hubs of research across all science and engineering disciplines. They stimulate both national and regional economies and serve as models for global communities, including East Asian nations with similar experiences. Accordingly, in pursuit of transforming science into market-driven innovation, the Ethiopian Ministry of Education has designated eight institutions as research universities. These universities are characterized by their seniority, urban settings, experienced academic staff, staff diversity (ranging from technical assistants to full professors), and well-developed infrastructure. However, despite these advantages, little is known about how their institutional status correlates with student typologies, particularly in terms of psychosocial dispositions and academic achievement.

Applied universities aim to develop high-level practical skills and are particularly important in systems that prioritize skilled labor for national development (Tamrat, 2019). The Western educational model values such practice-oriented institutions, particularly in countries like Germany and Switzerland (DAAD, 2019; de Weert *et al*., 2009; Tamrat, 2019). Drawing from global experiences, Ethiopia has identified fifteen PHEIs as applied universities, dedicated to translating academic knowledge into practical solutions in dynamic work environments. For example, it has been recommended that Ethiopian colleges strengthen ties with industrial parks to enhance their science and technology training programs. Salmi *et al*. (2017) noted that industrial parks provide practical opportunities for 63% of undergraduate students enrolled in public engineering and technology programs to integrate theory with practice. Compared to research institutions, applied universities differ in age, scope, staff composition, location, and student intake. Tamrat (2022) further explains that applied universities are tasked with delivering professional, practice-oriented teaching, forming strong industry connections, and engaging in collaborative applied research. Typically, they have a history of around fifteen years, offer fewer programs than research institutions, are located further from urban centers, and have less diverse staff, with a greater proportion of graduate assistants and fewer advanced degree holders. Additionally, they tend to have less developed infrastructure and fewer essential facilities, such as laboratories and workshops. Despite these differences, there is still a lack of understanding regarding the psychosocial dispositions and academic achievement of students in applied universities compared to those in research and comprehensive institutions.

The third category comprises comprehensive or general universities. These institutions generally offer broad-based programs with limited specialization (Mokiy, 2019) and focus on training graduates for direct service delivery in the labor market. The former MoSHE classified twenty-one universities under this category, emphasizing multidisciplinary undergraduate teaching (which accounts for 80% of enrollment) and mandating that at least 3% of their budget be allocated to research (Tamrat, 2022b). Comprehensive institutions differ from research and applied universities in terms of their historical development, location, staff makeup, infrastructure, and student capacity. Most were established during the recent expansion of higher education into rural areas. These institutions often enroll fewer students than research and applied universities and have less diverse staff. Nevertheless, they may feature sizable infrastructure and skilled personnel. Their development has accelerated urbanization and significantly improved the lives of residents in their respective regions. Still, little is known about the psychosocial typologies of students attending these institutions or how their academic performance compares to students at research and applied universities.

Although the concept of differentiation in Ethiopian higher education was introduced with strong theoretical justifications, there is a notable lack of empirical evidence on how students' generic psychosocial dispositions and academic performance differ within this classification. Obtaining such data from Africa—especially Ethiopia—is particularly challenging. This study is the first of its kind and aims to encourage further research on student profiling in higher education to improve academic outcomes. Specifically, this study seeks to identify whether differences exist among students enrolled in research, applied, and comprehensive universities in terms of generic psychosocial dispositions—including academic self-concept, motivation, academic practices, academic social skills, and anxiety-free learning—and academic achievement.

In Ethiopia, there is a scarcity of data and literature illustrating the extent and nature of students' distribution across research, applied, and comprehensive universities in terms of their academic performance and psychosocial traits. Some studies suggest that first-year students in Ethiopia face academic challenges. For instance, Yimer *et al*. (2022) observed that despite a sharp rise in enrollment, graduation rates at Ethiopian universities have remained stagnant. Evidence from Jimma and Hawassa universities shows that female students drop out at higher rates than their male counterparts (Bekele *et al*., 2007; Semela, 2007). At Arba Minch University, one study found that 38% of students were highly prone to attrition, with another 9% being moderately vulnerable (Fassil *et al*., 2018). In this context, Tamrat (2022) argues that the high attrition rate at Ethiopia's public universities signifies a substantial loss, undermining the nation's goal of expanding higher education through improved student success and retention.

Several factors contribute to student attrition in Ethiopia. A study at Gonder University cited inadequate facilities, difficulties adapting to campus life, and a lack of professional support services as reasons for student dropout (Sewasew, 2014). Similarly, Ali (2019), reporting from Haramaya University, identified poor assessment practices, unclear grading, challenging curricula, and peer influence from senior students as contributing factors. Additionally, affective, behavioral, and cognitive factors—such as anxiety and low self-esteem—can significantly hinder academic success. Kinde (2011) found that university students at Jimma University were especially vulnerable to academic struggles due to these issues.

While previous research has acknowledged academic shortcomings and their causes, the present study stands out in its scope and depth. Earlier findings have not adequately addressed the extent to which psychosocial variables—including academic self-concept, motivation, anxiety, and academic practice, and social skills— impact student success. Therefore, the present study incorporates these five psychosocial dimensions to comprehensively assess students' affective, behavioral, and cognitive characteristics alongside academic achievement.

2 Methods and Materials

2.1 Research Design

The study employed a quantitative methodology using a comparative cross-sectional survey design. This design was selected to facilitate the comparison of key variables at a single point in time across the three different types of public higher education institutions: research, applied, and comprehensive universities.

2.2 Population of the Study

The population of the study consisted of regular first-year students enrolled in 2023 across three universities in Ethiopia, each representing one of the differentiated types: research, applied, and comprehensive. The total population was approximately 7,264 students, distributed as follows: 2,672 students from a research university, 2,573 students from an applied university, and 2,019 students from a comprehensive university. The detailed population breakdown is presented in Table 1.

Table 1: Population Frame

Applied University						Research University						Comprehensive University					
Natural science			Social sciences			Natural science			Social sciences			Natural sciences			Social sciences		
M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total
1284	424	1710	601	262	863	1,336	625	1,961	504	207	711	810	240	1,050	720	249	969
Grand Total: 2,573						Grand Total =2,672						Grand Total = 2,019					

2.3 Sample and Sampling Techniques

The total sample size was n = 436. A multistage probability sampling technique was employed to ensure both randomness and proportional representation across the study population.

Initially, students were stratified based on the type of university (applied, research, and comprehensive) and their academic streams. The number of participants from each university and stream was determined proportionally. Subsequently, simple random sampling was used within each stratum to select participants who would provide the necessary data.

The sample size was calculated using the Krejcie and Morgan (1970) formula, assuming a 95% confidence level and a maximum allowable error (e) of 5%. The formula used is:

$n = \frac{N}{1+N(e)^2}$ Equation 1. Formula to estimate sample size from the given population size

Where, n = the desired sample size, N = total population, and e = the maximum discrepancy (.05).

Therefore, $n = \frac{7264}{1+7264(0.05)^2}$ = 379.

Considering response rate 15% of the sample size (n = 379*.15 = 57). Hence, the sample size accounts for 379 + 57 = 436. Having this into account samples will be drawn proportionally from each university where

$\frac{n}{N} = \frac{436}{7264}$ = 0.060 Equation 2. Formula to estimate proportional sample size from each stratum

In this regard, applied university has = 155 students, research university has= 160 students, and comprehensive university has = 121 students. The following Table 2 displays the sample frame.

Table 2: Sample Frame

Applied university						Research University						Comprehensive University					
Natural science			Social sciences			Natural science			Social sciences			Natural sciences			Social sciences		
M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total
77	26	103	36	16	52	80	38	118	30	12	42	49	14	63	43	15	58
Grand Total: 155						Grand Total = 160						Grand Total = 121					

2.4 Data Collection Instruments

The data collection instruments were selected based on the nature of the variables examined in this study. A questionnaire was used to gather information on demographic and predictive characteristics, including academic self-concept, motivation, anxiety, academic practice, and social skills. In addition, record analysis was used to collect students' cumulative grade point averages (CGPA) from their first and second semesters.

2.4.1 Questionnaire

2.4.1.1 Academic Self-Concept

Academic self-concept refers to first-year university students' perception of their academic strengths and weaknesses. The instrument was adapted from Yorke (2013) and consists of 18 items rated on a five-point Likert scale ranging from "strongly agree (5)" to "strongly disagree (1)". Its validity and reliability have been widely confirmed. For example, Liu *et al*. (2005) reported a reliability coefficient

of 0.82, Liu and Wang (2008) found 0.83, and Liu (2009) reported 0.89.

2.4.1.2 Academic Anxiety

Academic anxiety is defined as the psychological distress experienced by first-year university students due to personality traits or academic tasks such as math, writing, or testing. The instrument was adapted from Pizzie and Kraemer (2019) and includes 40 items divided into four sub-scales: trait anxiety, math anxiety, writing anxiety, and test anxiety, with 10 items per sub-scale. Participants rated each item on a five-point scale from "always true for me (5)" to "not true at all for me (1)". The instrument has demonstrated strong validity and a high internal consistency, with sub-scale reliabilities exceeding 0.90.

2.4.1.3 Academic Motivation

Academic motivation refers to the internal drive that propels first-year university students to strive for academic success. The instrument was adapted from Silva *et al*. (2018) and includes 28 items, rated on a five-point scale from "always true for me (5)" to "not true at all for me (1)". The instrument has good content validity and high internal consistency. Ratelle *et al*. (2004) reported a Cronbach's alpha of > 0.80 among Canadian students, while Silva *et al*. (2018) reported 0.83 among Portuguese students.

2.4.1.4 Academic Skills Practice

Academic skills practice refers to students' ongoing participation in academic activities and development of study habits. The instrument was adapted from AlFaris *et al*. (2018) and Gresham (1988) and consists of 35 items divided into two sub-scales: academic skills (13 items) and study skills (22 items). It uses a five-point rating scale from "always true for me (5)" to "not true at all for me (1)". The instrument demonstrated acceptable reliability, with a total scale Cronbach's alpha of 0.84, and sub-scale alphas ranging from 0.65 to 0.76.

2.4.1.5 Academic Social Skills

Academic social skills refer to the interpersonal abilities that first-year students use to enhance academic performance, such as social initiation, cooperation, and peer reinforcement. The instrument was adapted from Clark *et al*. (1985) and is known as the Teacher Rating of Social Skills – Children (TROSS-C). It contains 37 items across three subscales: peer initiation (12 items), cooperation (17 items), and peer reinforcement (6 items). Participants responded on a five-point scale ranging from "frequently (5)" to "never (1)". The internal consistency reliability of the instrument is high, with a Cronbach's alpha of 0.96 (Clark *et al*., 1985).

2.4.2 Record Analysis

Record analysis involved reviewing actual academic records of the participants. Specifically, data on the cumulative grade point average (CGPA) for both the first and second semesters of first-year university students were obtained from official university records.

2.5 Pilot Study

A pilot test was conducted using 25% of the total sample size, with participants selected without replacement. The goal was to test the appropriateness and clarity of the instruments before full-scale data collection.

2.5.1 Validity of the Instruments

Validity refers to how well an instrument measures the intended construct. In this study, expert judgment was used to evaluate the content validity of the instruments. Faculty members from the Department of Psychology reviewed the instruments for relevance, adequacy, clarity, and appropriateness for the socio-cultural context of the participants. Feedback led to modifications where necessary.

In addition, language experts from both the English and Amharic departments evaluated the linguistic accuracy of the items. For instruments originally developed in English and translated into Amharic, back-translation procedures were employed to ensure semantic equivalence. Both language versions were administered to the participants as appropriate. The data collection was conducted by trained professionals, and responses were carefully monitored and documented.

2.5.2 Reliability of the Instruments

The reliability of each instrument was assessed using the pilot study data, analyzed with SPSS Version 20. The final Cronbach's alpha coefficients for each instrument—used during the actual data collection—are presented in Table 3.

Table 3: Reliability Statistics of the Variable

Variables	Items in the original scale	Cronbach Alpha	Items removed	Items accepted	Cronbach Alpha
Self-concept	18	.630	5	13	.670
Motivation	28	.647	18	10	.745
Anxiety	40	.808	21	19	.811
Practice	35	.834	12	23	.859
Social skills	35	.776	18	19	.877

2.6 Methods of Data Analysis

2.6.1 Descriptive Statistics

Descriptive statistics, including measures of central tendency (mean) and dispersion (standard deviation), were used to summarize the variables: academic self-concept, motivation, anxiety, practice, social skills, and academic achievement. These values provided a basis for subsequent inferential statistical analyses.

2.6.2 Multivariate Analysis of Variance (MANOVA)

A Multivariate Analysis of Variance (MANOVA) was employed to examine differences in academic self-concept, anxiety, motivation, academic practice, social skills, and academic achievement among students from three types of universities: research, applied, and comprehensive. University type was treated as a categorical variable, while the other variables were continuous. All assumptions necessary for conducting MANOVA were satisfied.

2.7 Procedures

2.7.1 Data Gathering

Participants were given clear instructions on how to complete the questionnaires, and assurances were provided regarding the confidentiality of their responses. Participants were strongly encouraged to complete the surveys independently, answer honestly, and seek clarification when needed.

2.7.2 Data Analysis

Data preparation began with organizing and entering the data into SPSS software. Incomplete responses were removed during the data cleaning phase. Reverse-coded (negatively worded) items were recoded into positive items to standardize interpretation. All five continuous variables were then scaled for compatibility with students' CGPA (maximum of 4.00). Outliers were identified and removed using box plots as part of the data normalization process. Finally, analyses were conducted in the following order: frequency distribution, descriptive statistics, correlation analysis, and inferential statistics.

2.7.3 Ethical Approval

Ethical clearance was granted by the Research Ethics Committee of the Institute of Educational and Behavioral Sciences. Informed consent was obtained from all participants. To protect confidentiality, the names of the universities were anonymized and referred to as Research University, Applied University, and Comprehensive University.

3 Results

Following data entry, several steps were undertaken to ensure data quality. First, incomplete responses were removed—five from Applied University and three from Research University. Then, reverse-coded items were transformed into positive statements to facilitate accurate interpretation. Outliers were identified and excluded using box plots. Specifically, seven cases with scores below the 25th

percentile were removed (two from Applied University, two from Research University, and three from Comprehensive University). These steps helped ensure data integrity and that statistical assumptions were met. The final response rate was 96.56%, which is considered adequate based on benchmarks such as the 80% minimum threshold recommended by Fincham (2008).

3.1 Demographics

Demographic variables, such as age and place of residence (urban vs. rural), were included to assess their influence on academic achievement. Age differences were examined to determine whether they contributed to variations in academic performance. Likewise, students' residential backgrounds were considered to evaluate whether disparities in academic achievement were associated with their living environments. These demographic factors were essential in analyzing the extent of their impact on student outcomes.

Table 4: Demographic Characteristics

Variable	Category	N	%
Gender	Male	300	71.3
	Female	120	28.5
	Common	1	.2
	Total	421	100
Age	Early adulthood (18-25)	415	98.6
	Middle adulthood (26-32)	6	1.4
	Total	421	100
University	Applied	148	35.2
	Research	155	36.8
	Comprehensive	118	28.0
	Total	421	100
Home area	Urban	237	56.3
	Rural	184	43.7
	Total	421	100
Religion	Orthodox	186	44.2
	Protestant	152	36.1
	Catholic	4	.1
	Muslim	55	13.1
	Wakefeta	2	.5
	Neutral	20	4.8
	Other	2	.2
	Total	421	100
Stream	Natural science	271	64.4
	Social science	150	35.6
	Total	421	100

3.2 Demographic Characteristics of the Participants

Table 4 presents the demographic information of the participants. The total number of participants was 300. In terms of gender, male students comprised 71.3% of the sample, indicating a significant gender imbalance. This suggests a need for greater institutional support and targeted interventions to encourage female participation and promote gender equity in higher education. With regard to age, 415 participants (98.5%) were categorized as young adults, aligning with the expected age range of university students who are typically in their developmental phase toward academic and professional maturity.

In terms of religious affiliation, most students, 186 (44.20%), identified as Orthodox Christians. A very small proportion (0.20%) reported belonging to other religious groups, suggesting a relatively homogeneous religious composition.

Regarding university type, 155 participants (36.6%) were enrolled at the Research University, followed by students at the Applied and Comprehensive Universities. This may be attributed to the more established infrastructure and higher intake capacity of the Research University.

Examining place of residence, 237 participants

(56.3%) reported coming from urban areas, indicating that students from rural backgrounds continue to face barriers in accessing higher education. This highlights the importance of implementing special programs and policy initiatives aimed at improving access and retention of students from rural communities.

Finally, concerning academic streams, 150 participants (35.60%) were enrolled in social science disciplines, while 271 participants (64.40%) were from natural sciences. This distribution reflects a broader trend in response to the growing demand for scientific and technological expertise in today's rapidly evolving world.

3.3 Descriptive Statistics for the Variables

The study included six key variables. Academic achievement was the dependent variable, while academic self-concept, academic practice, academic motivation, academic anxiety, and academic social skills served as the independent variables. Descriptive statistics were computed using the transformed dataset to summarize the central tendencies and dispersions of these variables. The results are presented in Table 5 below.

Table 5: Descriptive Statistics

Variable	N	Range	Minimum	Maximum	Mean	Std. Deviation
Academic achievement	421	2.50	1.50	4.00	2.96	.611
Academic self-concept	421	1.97	2.03	4.00	3.42	.442
Academic skills practice	421	2.02	1.98	4.00	3.34	.437
Academic motivation	421	1.92	2.08	4.00	3.56	.423
Academic anxiety	421	1.93	1.89	3.82	3.06	.469
Academic social skills	421	2.14	1.81	3.95	3.32	.449

3.4 Descriptive Statistics for the Key Study Variables

Table 5 presents the descriptive statistics for the primary study variables, based on data from 421 participants. Among the variables, academic motivation recorded the highest mean score (M = 3.56), whereas academic achievement had the lowest mean score (M = 2.96). This indicates that, on average, participants demonstrated higher levels of motivation compared to other measured attributes.

Measures of dispersion—including range and standard deviation—were also calculated to assess variability within the data. Academic achievement exhibited the widest range and the largest standard deviation, suggesting a greater variability in student performance. In contrast, academic motivation showed the narrowest range and the smallest standard deviation, implying that students' motivational levels were relatively consistent across the sample.

These findings highlight that while motivation levels were generally high and uniform among participants, academic achievement varied substantially, suggesting that other factors may influence student performance beyond motivation alone.

3.5 Correlations among the Variables

The study examined the relationships among six key variables: academic achievement, academic self-concept, academic skills practice, academic motivation, academic anxiety, and academic social skills. Pearson product-moment correlation coefficients were computed to determine the strength and direction of the relationships between each pair of variables. The results are summarized in Table 6 below.

Table 6 shows the correlation coefficient between the studied variables. Academic achievement and academic anxiety were shown to have a strong positive relationship (r = .69), as were academic

self-concept and academic anxiety (r = .70), academic self-concept and academic skills practice (r = .68), academic skills practice and academic anxiety (r = .67), and academic self-concept and academic achievement (r = .64). The remaining data showed that there was a moderately positive association between them all.

Table 6: Correlation among the study variables

Variables	1	2	3	4	5	6
Academic achievement	-					
Academic self-concept	.64**	-				
Academic skills practice	.53**	.68**	-			
Academic motivation	.40**	.53**	.56**	-		
Academic anxiety	.70**	.69**	.67**	.48**	-	
Academic social skills	.50**	.52**	.56**	.60**	.56**	-

**p< .01

3.6 Academic Achievement and Psychosocial Dispositions among Differentiated Universities

This section outlines the impact of three differentiated universities as an independent variable on the academic performance, academic self-concept, academic practice, academic motivation, academic anxiety, and academic social skills of the students. Multivariate Analysis of Variance (MANOVA) was applied to examine the impact of three categorical variables on six continuous variables.

A. Levene's Test of Equality of Error Variances

The Levene's Test of Equality of Error Variances is one of the assumptions of the MANOVA test. It refers to the population variances (i.e., the distribution, or "spread," of scores around the mean) of two or more groups being considered equal. According to a non-significant Levene's Test of Equality of Error Variances result, the variance across the groups is approximately equal, and the homogeneity of variance assumption is met.

As in Table 7, the Levene's Test of Equality of Error Variances reveals that F (418) = 1.46, p =.234 for academic self-concept, F (418) =.92, p =.400 for academic skills practice, F (418) = 2.90, p =.056 for academic motivation, F (418) =.31, p =.734, for academic anxiety, F (418) = 1.30, p =.274 for academic social skills and F (418) = 2.42, p = .091 for academic achievement. All of the non-significant findings demonstrate that the groups are comparable and that MANOVA is sound for data analysis.

Table 7: Levene's Test of Equality of Error Variances

Variables	F	df1	df2	Sig.
Academic self-concept	1.46	2	418	.234
Academic skills practice	.92	2	418	.400
Academic motivation	2.90	2	418	.056
Academic anxiety	.31	2	418	.734
Academic social skills	1.30	2	418	.274
Academic achievement	2.42	2	418	.091

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + University

B. Descriptive statistics

The means, standard deviations, and standard errors of the means for each of the six variables were particularly highlighted by the descriptive statistics of the three universities. In the section that follows, the results are presented.

Table 8: Descriptive Statistics

		N	Mean	SD	SE	95% CI. for Mean	
						Lower Bound	Upper Bound
Self-concept	Applied University	148	3.36	.451	.037	3.29	3.43
	Research University	155	3.49	.406	.033	3.42	3.56
	Comprehensive University	118	3.39	.464	.043	3.30	3.47
	Total	421	3.42	.442	.022	3.37	3.46
Practice	Applied University	148	3.32	.436	.036	3.25	3.39
	Research University	155	3.41	.417	.033	3.34	3.47
	Comprehensive University	118	3.29	.456	.042	3.21	3.37
	Total	421	3.34	.437	.021	3.30	3.39
Motivation	Applied University	148	3.57	.427	.035	3.50	3.64
	Research University	155	3.62	.397	.032	3.55	3.68
	Comprehensive University	118	3.46	.437	.040	3.38	3.54
	Total	421	3.56	.423	.022	3.51	3.60
Anxiety	Applied University	148	2.96	.461	.038	2.89	3.04
	Research University	155	3.15	.461	.037	3.07	3.22
	Comprehensive University	118	3.05	.471	.043	2.97	3.14
	Total	421*	3.06	.469	.023	3.01	3.10
Social skills	Applied University	148	3.31	.449	.037	3.24	3.38
	Research University	155	3.40	.414	.033	3.34	3.47
	Comprehensive University	118	3.22	.473	.044	3.14	3.31
	Total	421	3.32	.449	.023	3.28	3.36
CGPA	Applied University	148	2.78	.553	.045	2.69	2.87
	Research University	155	3.10	.622	.050	2.10	3.19
	Comprehensive University	118	3.02	.616	.057	2.90	3.13
	Total	421	2.96	.611	.030	2.90	3.02

Table 8 above gives the descriptive statistics for the six variables. In comparison to the other students at the two universities, Research University students scored higher on tests of academic self-concept (mean = 3.49), academic practice (3.41), academic motivation (3.62), anxiety-free learning (3.15), academic social skills (3.40), and academic achievement (3.10). Applied University students were determined to be the second best of the three universities in terms of academic motivation and academic social skills. The same study also revealed that Comprehensive University students ranked second in terms of academic achievement, anxiety-free learning, and academic self-concept.

C. Multivariate Tests

The multivariate analysis here indicates whether there is a significant group difference across the six groups of dependent variables concurrently. Taking this into account, the result of the current study is depicted in Table 9 below.

Table 9 shows significant multivariate test results. Pillai's Trace is used to report the result because it is a robust and powerful test statistic for unequal group sizes. In this regard, Pillai's Trace = 0.101,

F(2, 418) = 3.68, p = .000, partial η^2 = .051. This indicates that university variation has a statistically significant combined effect on the students' academic-related self-concept, skills practice, motivation, social skills, anxiety, and achievement.

Table 9: Multivariate Tests

	Effect	Value	F	Hypothesis df	Error df	Sig.	Partial η^2
Intercept	Pillai's Trace	.989	6440.163	6.000	413.000	.000	.989
	Wilks' Lambda	.011	6440.163	6.000	413.000	.000	.989
	Hotelling's Trace	93.562	6440.163	6.000	413.000	.000	.989
	Roy's Largest Root	93.562	6440.163	6.000	413.000	.000	.989
University	Pillai's Trace	.101	3.68	12.000	828.000	.000	.051
	Wilks' Lambda	.901	3.69	12.000	826.000	.000	.051
	Hotelling's Trace	.108	3.70	12.000	824.000	.000	.051
	Roy's Largest Root	.078	5.35	6.000	414.000	.000	.072

a. Design: Intercept + University

b. Exact statistic

c. The statistic is an upper bound on F that yields a lower bound on the significance level.

D. Tests of Between-Subjects Effects

Tests of Between-Subjects Effects demonstrate the impact of the independent variable on each of the dependent variables. In this study, the impact of university variation on students' academic-related self-concept, skills practice, motivation, anxiety, social skills, and achievement is examined. Table 10 below summarizes the result.

Table 10 below shows that university variation has a statistically significant effect, except on academic skills practice. Significant effects were found on academic self-concept, F(2, 418) = 3.82, p = .023, Partial η^2 = .018; motivation, F(2, 418) = 4.64, p = .010, Partial η^2 = .022; anxiety, F(2, 418) = 5.86, p = .003, Partial η^2 = .027; social skills, F(2, 418) = 5.73, p = .004, Partial η^2 = .027; and achievement, F(2, 418) = 11.15, p = .000, Partial η^2 = .051.

E. Multiple Comparisons

Bonferroni correction as post hoc analysis was applied to determine in which pairs of universities statistically significant differences were found. Table 11 summarizes the results.

Table 11 below displays a statistically significant difference between Research University students and Applied University students in academic self-concept, anxiety-free learning, and academic achievement. In all three variables, students from Research University were found to be better than students from Applied University: p = .027 for self-concept, p = .002 for anxiety-free learning, and p = .000 for academic achievement. On the other hand, a statistically significant difference was found between Research University students and students from Comprehensive University in academic motivation, p = .008, and academic social skills, p = .002, where students from Research University demonstrated better academic motivation and social skills than students from Comprehensive University.

Table 10: Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Sq.	df	Mean Sq.	F	Sig.	Partial η^2
Corrected Model	Self-Concept	1.469[a]	2	.735	3.82	.023	.018
	Skills practice	1.012[b]	2	.506	2.68	.070	.013
	Motivation	1.629[c]	2	.814	4.64	.010	.022
	Anxiety	2.520[d]	2	1.260	5.86	.003	.027
	Social skills	2.255[e]	2	1.127	5.73	.004	.027
	Achievement	7.940[f]	2	3.970	11.15	.000	.051
Intercept	Self-Concept	4831.847	1	4831.847	25095.78	.000	.984
	Skills practice	4629.735	1	4629.735	24485.47	.000	.983
	Motivation	5224.068	1	5224.068	29754.48	.000	.986
	Anxiety	3871.654	1	3871.654	18013.42	.000	.977
	Social skills	4553.380	1	4553.380	23145.22	.000	.982
	Achievement	3648.804	1	3648.804	10249.53	.000	.961
University	Self-Concept	1.469	2	.735	3.82	.023	.018
	Skills practice	1.012	2	.506	2.68	.070	.013
	Motivation	1.629	2	.814	4.64	.010	.022
	Anxiety	2.520	2	1.260	5.86	.003	.027
	Social skills	2.255	2	1.127	5.73	.004	.027
	Achievement	7.940	2	3.970	11.15	.000	.051
Error	Self-Concept	80.480	418	.193			
	Skills practice	79.036	418	.189			
	Motivation	73.389	418	.176			
	Anxiety	89.841	418	.215			
	Social skills	82.234	418	.197			
	Achievement	148.807	418	.356			
Total	Self-Concept	4991.965	421				
	Skills practice	4788.809	421				
	Motivation	5395.520	421				
	Anxiety	4023.686	421				
	Social skills	4725.184	421				
	Achievement	3853.910	421				
Corrected Total	Self-Concept	81.950	420				
	Skills practice	80.048	420				
	Motivation	75.018	420				
	Anxiety	92.362	420				
	Social skills	84.488	420				
	Achievement	156.746	420				

a. R Squared = .018 (Adjusted R Squared = .013)

b. R Squared = .013 (Adjusted R Squared = .008)

c. R Squared = .022 (Adjusted R Squared = .017)

d. R Squared = .027 (Adjusted R Squared = .023)

e. R Squared = .027 (Adjusted R Squared = .022)

f. R Squared = .051 (Adjusted R Squared = .046)

Table 11: Multiple Comparisons

Dependent Variable	(I) University	(J) University	Mean Diff. (I-J)	SE	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Academic Self-Concept	Comprehensive	Applied	.0268	.05415	1.000	-.1034	.1570
		Research	-.1056	.05361	.149	-.2344	.0233
	Applied	Comprehensive	-.0268	.05415	1.000	-.1570	.1034
		Research	-.1324*	.05043	.027	-.2536	-.0112
	Research	Comprehensive	.1056	.05361	.149	-.0233	.2344
		Applied	.1324*	.05043	.027	.0112	.2536
Academic Skills Practice	Comprehensive	Applied	-.0308	.05367	1.000	-.1598	.0982
		Research	-.1156	.05312	.090	-.2433	.0121
	Applied	Comprehensive	.0308	.05367	1.000	-.0982	.1598
		Research	-.0848	.04997	.271	-.2050	.0353
	Research	Comprehensive	.1156	.05312	.090	-.0121	.2433
		Applied	.0848	.04997	.271	-.0353	.2050
Academic Motivation	Comprehensive	Applied	-.1055	.05171	.126	-.2298	.0188
		Research	-.1545*	.05119	.008	-.2775	-.0314
	Applied	Comprehensive	.1055	.05171	.126	-.0188	.2298
		Research	-.0490	.04816	.929	-.1647	.0668
	Research	Comprehensive	.1545*	.05119	.008	.0314	.2775
		Applied	.0490	.04816	.929	-.0668	.1647
Academic Anxiety	Comprehensive	Applied	.0876	.05722	.379	-.0499	.2252
		Research	-.0947	.05664	.286	-.2309	.0414
	Applied	Comprehensive	-.0876	.05722	.379	-.2252	.0499
		Research	-.1824*	.05328	.002	-.3104	-.0543
	Research	Comprehensive	.0947	.05664	.286	-.0414	.2309
		Applied	.1824*	.05328	.002	.0543	.3104
Academic Social Skills	Comprehensive	Applied	-.0891	.05474	.313	-.2207	.0425
		Research	-.1826*	.05419	.002	-.3129	-.0524
	Applied	Comprehensive	.0891	.05474	.313	-.0425	.2207
		Research	-.0935	.05098	.202	-.2161	.0290
	Research	Comprehensive	.1826*	.05419	.002	.0524	.3129
		Applied	.0935	.05098	.202	-.0290	.2161
Academic Achievement	Comprehensive	Applied	.2347*	.07364	.005	.0577	.4116
		Research	-.0796	.07290	.827	-.2548	.0956
	Applied	Comprehensive	-.2347*	.07364	.005	-.4116	-.0577
		Research	-.3142*	.06857	.000	-.4791	-.1494
	Research	Comprehensive	.0796	.07290	.827	-.0956	.2548
		Applied	.3142*	.06857	.000	.1494	.4791

Based on observed means.

The error term is Mean Square (Error) = .356.

* The mean difference is significant at the .05 level.

4 Conclusions and Recommendations

4.1 Conclusions

The study revealed a significant difference in academic achievement results across students attending different types of universities. Specifically, students at Research University outperformed their counterparts at Applied and Comprehensive Universities. This trend was also observed in various psychological characteristics related to academic success, such as self-concept, anxiety-free learning, motivation, and social skills. Participants from Research University displayed higher levels of academic self-concept, engaged in stress-free learning, demonstrated greater motivation, and exhibited stronger social skills compared to students at Applied and Comprehensive Universities. These findings suggest that attending a research university might have a positive impact on students' psychological characteristics, which serve as driving forces for academic performance. The study's contribution to the scientific community lies in its unique findings, which shed light on the variation in academic achievement results and psychological characteristics among students at different types of institutions. The authors encountered a notable gap in existing literature, which prompted them to explore and confirm these variations across the three types of universities.

The differences in students' psychological characteristics and academic achievement results across the three tertiary institutions can be attributed to various factors. One possible reason for this variation is the issue of placement. It is widely known that high-performing students choose institutions that offer better infrastructure, are centrally located, and are led by experienced teachers. Another significant factor is the advantage of location. Most research universities in Ethiopia are situated in urban areas, and students with higher grades tend to prefer these institutions.

That said, the study provides a basis for demonstrating the current state of students' academic-prone psychological characteristics and academic performance across research, applied, and comprehensive institutions; nonetheless, more in-depth investigation or analysis is required by other scholars. Because of the topic's novelty, one of the main gaps was the lack of prior research that might offer comparisons and analysis.

4.2 Recommendations

Based on the conclusions made from the findings, the following major recommendations are forwarded:

1. Apply meticulous, authentic, and holistic assessments to place students in higher institutions based on the students' academic performance, extracurricular activities, individual strengths (unique talent, interest, and aptitude), personal essays, and recommendations.

2. Ensure fair access to facilities and resources for all differentiated universities based on the unique characteristics of the students placed and the training programs in the applied and comprehensive higher institutions.

3. Enhance the academic self-concepts, motivation, practice, and social skills of students placed in applied and comprehensive universities. This requires organizing and administering a supportive and engaging learning environment, focusing on efforts and growth, fostering a sense of belongingness and self-efficacy, leveraging technology, designing an interactive learning environment, and addressing individual students' needs through tutoring and individualized instructions.

4. Organize student support mechanisms for students placed in applied and comprehensive universities on effective time management, developing study habits, and self-care practices to help students manage academic anxieties.

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Conflict of Interests

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Comparative Analyses of Education Quality in Primary Schools of Gedeo Zone: Public Vs Private Controversy, Analyzed against Resources Allocation

Berhanu Moyata Tufa [1,*] **and Mesfin Demisse Dukale** [1]

[1]Department of Educational Planning and Management, Dilla University

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Abstract

The objective of the study was to investigate the persistent debate as to whether public or private schools provide better quality education, focusing on resource allocation as a measure of commitment to educational quality. An input model was employed for comparing schools' commitment for ensuring education quality. Besides, quantitatively slanted mixed-method approach, with concurrent design were used. Primary data were collected from staff, and secondary data were gathered through document analysis and observation of school facilities. Quantitative data were analyzed employing independent sample t-tests and eta-squared (η^2) with the help of SPSS software, while qualitative data were narrated under relevant theme. The findings revealed mixed results. Public schools excel in terms of teachers' qualifications, professional leadership, supervision, financial resource allocation and school facilities. Conversely, private schools were found to be more committed in providing books and maintaining aesthetics of the school environment. However, neither of the school type provided the ideal standards of human, financial and material resources. Likewise, the study concluded the suffering of education quality from shortfall of resource allocation in both school types. This calls for joint effort by education bureaus, schools leaders, teachers and parent for ending the trend. That is, emphases need to be made on human development and resource mobilization in both school categories; indeed, the teaching-learning process in public schools needs special attention.

1 Background

The definition of quality in education is illusive and difficult to agree upon. It is diverse, but scholars, politicians, and professionals are still trying to assess and improve it by exploring and improving its meaning. Quality in education is frequently evaluated using criteria including excellence, relevance, equity, and efficiency, according to recent research (UNESCO, 2023; OECD, 2021). Common standards for assessing quality now include metrics like completion and survival rates, as well as quantifiable inputs like funding, trained instructors, and sufficient course materials (World Bank, 2022).

Context, Input, Process, and Product (CIPP) models are among the frameworks that continue to offer a strong foundation for evaluating the quality of education. Alharbi and Refai (2020) and other recent studies emphasize the crucial role that material, financial, and human resources play in determining learning environments and results. Adedeji and Ojo (2021) and UNESCO (2023) also stress the need of adequate finance, well-equipped schools, and efficient teaching methods in promoting aca-

* Corresponding Author; Email: berhanumt@yahoo.com, birhanum@du.edu.et;
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demic success. These inputs have a direct impact on students' academic performance and the standard of education as a whole, when combined with supportive procedures.

It is global phenomenon that both public and private school categories prevail jointly, each having own strengths and weakness. According to empirical studies from Lagos-Nigeria, public schools have more qualified teachers than private ones, but they are blamed for inadequate facilities, packed classrooms, and lax disciplinary procedures that discourage parents (Adedeji & Ojo, 2021). Besides, Mabel and Olasunkanmi (2012) analyzed the practice in the same city (Lagos): As to them, public schools outshine for teachers quality over private schools. However, they affirm that public schools are criticized for poor school discipline, shortage of seats, stuffy and rowdy classrooms being obstruction to academic output. Likewise, parental choice to private schools has been increasing than ever before. For example, wealthier households in Kenya were seen sending children to private schools due to perceptions of improved school settings and customized attention; attendance at private schools has also climbed dramatically in urban areas (UNICEF, 2021). Consequently, proportion of children in Kenyan private primary schools shows significant increment from 4.8 - 12.2% in between 2004 – 2007 (Nishimura & Yamano, 2008). In Ethiopia, the rise in proportion of private schooling recently accounts to 8.3% (MoE, 2023), which is roughly equivalent to the neighboring Kenyan practice. In fact, public choice for schools differs among nations, eras, educational levels, and home environments. Numerous elements, such as educational quality, teacher conduct, and school discipline, affect parents' decisions. By and large, parental preferences are heavily influenced by amenities and safety even though academic excellence is a top concern (World Bank, 2022; UNESCO, 2023). This partly agrees with the trend in Ethiopia, where majority of parents prefer public schools due to abolition of fees; and yet few parents favor private school for academic excellence and based on their economic capacity to afford.

Since the implementation of the 1994 Education and Training Policy (ETP), Ethiopia has made significant progress in expanding its education system, particularly at the primary level. The policy encouraged private sector involvement in education, which led to the establishment of both public and private schools. However, by 2021, government-owned schools still accounted for approximately 93% of primary schools in the country (MoE, 2023; Global Partnership for Education/GPE, 2023). The MoE also reported impressive gains in enrollment; with the gross enrollment rate (GER) reaching 95.1% and the net enrollment ratio (NER) standing at 86.4% at primary level (GPE, 2023).

Despite these advancements, the education sector continues to face significant challenges. Critics have pointed out that the rapid expansion of education has not been equitable, especially for girls, children in rural and pastoral areas, and those from economically disadvantaged backgrounds (World Bank, 2008; UKFIET, 2023). These groups still face barriers to accessing quality education, which has led to concerns about the inclusivity of the education system (GPE, 2023). While Ethiopia has made strides in improving access, the country still grapples with gender disparities and regional inequalities, especially in more remote areas (UKFIET, 2023). Efforts such as the General Education Quality Improvement Program (GEQIP) have helped to improve educational infrastructure, but challenges remain in achieving equitable outcomes across the nation (GPE, 2023).

2 Problem formulation

The public-private controversy is among the hottest debate pertaining to education quality all over the world. As indicated by scholars like Nishimura and Yamano (2008), there appear mixed findings as to whether public or private schools provide education of better quality. For instance, a comparative study conducted on public and private primary schools in Pakistan, the predominant findings show that private schools perform better than public schools, nevertheless both face a number challenges. Additionally, both school types were identified for depriving quality of human and material resources (Shabbir, *et al*., 2014). Besides, a report by Gandhi (1996) is a typical example indicating an important aspect of the debate on the quality of schooling in

both categories: Among other things, the report revealed the superiority of the private schools as far as quality issue is concerned. That is mainly because of their accountability to parents who pay fees, competition among providers and decentralized management. On the other hand, a study conducted in Pakistan by Ali *et al* (2012) revealed existence of poor education in both the private and public schools; but, confirmed prominence of education quality in public schools.

As of the 1994 ETP, Ethiopia had formulated education & training policy, strategies and relevant programs, which were aimed at improving educational expansion, quality, relevance and equity. For example, the general education quality improvement program(GEQIP), which had been under implementation since 2009 could justify government's effort to ensure quality in education. Despite all these efforts, however, the country's education system has been under critics for lacking quality. There are empirical studies confirming the deteriorating trends of quality. In this regard, General Education Quality Assurance &Examinations Agency (GEQAEA, 2008), verified the declining trend of students' performance; mainly due to inadequate educational inputs.

Though the country has registered glorious results in access, poor quality of education has been witnessed (World Bank, 2008): That is, based on the National Learning Assessment (NLA), in grades 4 and 8 and other studies, World Bank concluded major problems of the Ethiopian education system to be (i) deteriorating trend of quality in some areas, at least partly as a result of rapid expansion, poor school organization and management; shortage of school supplies, textbooks, curricular and instructional materials, (ii) inadequacy of finance; (iii) managerial incapability of the educational leaders at different echelons to plan, manage and monitor the education process.

Furthermore, reports from MoE (2023) reveal severe suffering of quality in primary schools mainly due to scarcity of resources: For example, nationally only 13.1% of teachers were qualified to the level. The case in South Ethiopian region (where the zone under the study is found) attains only 11.5% of qualified teachers, which is even worse than the national average. Moreover, only 45.1% and 76.9% of principals and supervisors were qualified in the region; and the region lags behind the national average where 54.2% and 83.4% of principals and supervisors were respectively qualified.

Nationally, average textbook-pupil ratio (TPR) for primary is only 3.5, and that of South Ethiopia Region is 3.1; obviously these ratios are much less than the standard (1:1). Section-pupil ratio is 1:55 for the public and 1:31 for the private schools. Facility wise, only 30.4% of primary schools have access to electricity and radios are available in only 34% of primary and middle level schools. Similarly, 40% of the schools have access to water supply and 55.7% of them have functional library. Further, only 46.7% of schools had functional laboratory, 49.6% functional pedagogical center, and 93% of the primary schools own functional toilets.

As far as research gap is concerned, attempts have been made to find studies conducted on the public versus private debate. Access to public versus private comparative studies with particular emphasis to their commitment toward provision of quality education has not been easy. As witnessed by Elizabeth (2020), there has been no parallel study on relationships among inputs, processes, and outputs at all the levels of the education system. However, there were some international and local comparative studies. For instance, Bibi, Aftab and Zaheer (2021) have conducted comparative analysis on public and private schools from perspective of quality education in Pakistan. Similarly, Kalasa, Phiri, and Chitondo (2023) undertook a comparative analysis with emphasis on learner performance in public and private schools in secondary schools in Lusaka, Zambia. Locally, there were too few comparative studies. For example, Yohannes (2005) conducted comparative study in public and private secondary schools and Teshome (2017) conducted a comparative study on public schools and private schools in Ethiopia from perspective of their contribution to national development. Some of these studies focused on secondary level, others were not timely, and even other are out of context of Africa and Ethiopia. To the knowledge of the researcher, no comparative study on public and private primary schools of Gedeo zone was found. Thus, the cur-

rent study has attempted to dwell at primary level, time and setting gaps unlike the mentioned ones. More specifically, the study was conducted with intentions of answering the following basic research questions:

i. How do human, financial and material resource provisions vary between the private and public primary schools in Gedeo Zone?

ii. Is there statistically significant difference between the public and private primary schools in their commitment for ensuring education quality as measured by availability of human, financial and materials inputs?

3 Literature and conceptual framework

This section presents review of related literature pertaining to education quality in general and from public-private perspective in particular. Besides, conceptual framework was developed based on the literature review and presented.

3.1 Conceptualization of quality in education

The quality of education is a notion that cannot be captured through any single definition or approach to understand the term or phenomenon in the light of different viewpoints (Motala, 2001) of policy makers, principals, teachers, parents and students, which consist of the common interest in educational outcomes (Scheerens& Hendriks, 2004). Quality in education is a complex term and multifaceted in nature, and is represented by the different words (Sahito & Vaisanen, 2019). Despite the difficulties, however, professionals, policy makers, academicians, leaders, and researchers relentlessly kept on measuring and improving this apparently obscure concept (Villanueva, 2012). For example, Lomas (2010) provides a heuristic framework to define quality and suggest that quality can be viewed as *excellence*, as *transformative, as fitness for purpose or as value for money*.

3.2 Indicators of Quality Education

Indicators of quality education are elusive to define and have overlapping nature in classification. Rowe and Lievesley (2002) define performance indicators of education as data indices of information by which the functional quality systems may be measured and evaluated: Likewise, Classification of indicators of educational quality differ based on particular criterion one takes into account, policy issues to be analyzed, time and level of education under consideration. Besides, Cameron (2004) adds two indicators that have been put forward by the international community to measure quality that are being used by many international agencies including the World Bank; and these are survival and completion rates. In this regard, Cameron mentioned that survival and completion rates are employed in combination of such calculable results as availed quantifiable inputs like financial resources, teachers, and textbooks, describable processes that be monitored through descriptive indicators, and also cohort flows such as repetition, promotion, and dropout rates. Lastly, Cornali (2012) advocates the CIPP (i.e., Context, Input, Process & Product) model proposed by Stufflebeam as analytical basis for evaluating quality of a give education.

3.3 The Ethiopian education policy frameworks and education quality

Considerable efforts have been underway with emphasis to boosting education system of the country. Specifically, since the endorsement of 1994 Education and training policy, Ethiopia has made significant improvements across the education sector especially on increased enrollment in primary education even though nearly 20% lower than in the rest of low-income countries of Africa (UN, 2015). However, the primary education efficiency (defined here as the percentage of students that enroll in primary school that reach the final year of primary school) remains a significant challenge in Ethiopia (Teklu, 2019).

3.4 The Ethiopian Education Policy Frameworks

The framework of the 1994 Education and Training Policy of Ethiopia developed different strategies and reform tools that sustain equity and access of education to its citizens. Among others, five Education Sector Development Programs (ESDPs) were endorsed since 1996/97 with a long-range rolling

plan focused on the comprehensive development of the education sector over a 20-year period (MoE, 2015): These ESDPs were meant to translate policy statements into action by providing sector-wide implementation framework, which include the five years ESDPs. Above all, these periods were highly remarked with the success in access and equity especially in primary education. Similarly, as evidenced by the aforementioned report of MoE, the first four ESDPs in Ethiopia remarked successful strategy in expanding access and moving primary education towards the goal of universal primary education by 2014/15.

Among others General Education Quality Improvement Program-GEQIP, which constitutes six packages namely: Teacher development program, curriculum improvement, school Improvement, Education planning and management, ICT and civics and ethical education had been launched (MOE, 2010). The development objective of the Program is to improve the quality of general education (Grades 1-12) throughout the country. From the six GEQIP packages, school improvement is more comprehensive packages that promotes good learning environment for students that accesses all educational facilities expected in reducing education wastage and promoting retention rate (MOE, 2010). However, there are still challenges in Ethiopian primary education efficiency. The main reasons for the low completion rates are associated with children dropping out from school and repetition in the same grade. The dropout rate is very high in Ethiopia (MoE, 2013 MoE, 2015). Tasew and Adiam (2015) also confirm that the dropout rate and repetition rate had been exacerbating from 2010 to 2013 at rate of 8% at national level. This finding remarks that primary education wastage is still a challenge against sustainable development goals in Ethiopia.

3.5 Conceptual framework

Conceptual framework is synthesized from the literature reviewed above and partly adapted from the CIPP (Context, input, process & product) Model developed by Stufflebeam; and provides holistic perspective for assessing how much a given education system is committed for provision of quality education as measured by CIPP (Stufflebeam, 2002).. Similarly, in this particular study context aspect is measured by mission, goal and objectives set. The input element evaluates the extent to which human, financial and materials are fulfilled. The process aspect analyzes teaching-learning and leadership. The product aspect examines theoretical knowledge, skill and attitudinal changes brought about.

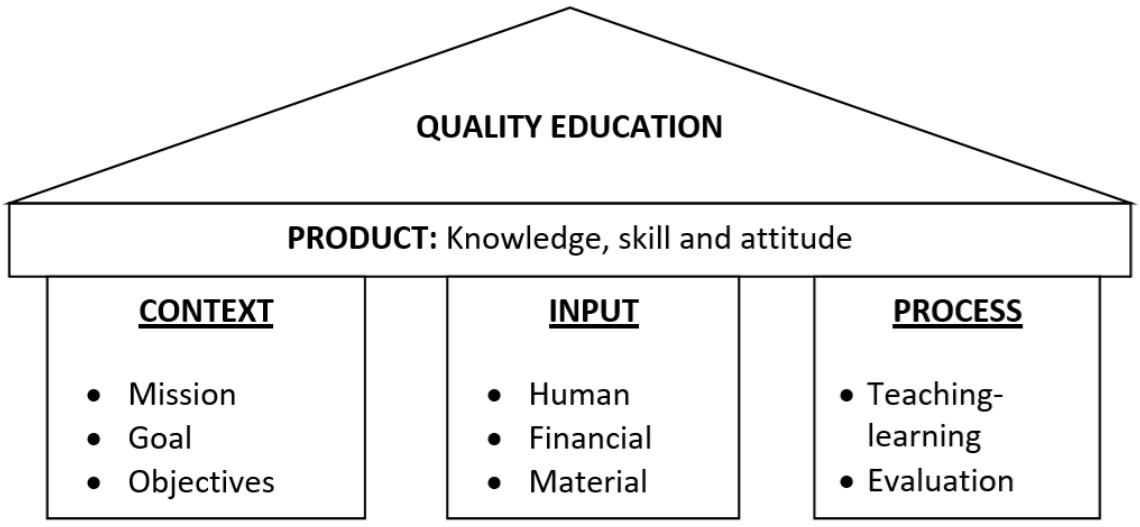

Figure 1: Conceptual framework; adapted from literature and Stufflebeam (2002)

In a nutshell, as depicted in the model in figure 1, development of clear context, inputs availability and relevant process are key pillars of quality education.

4 Research Design and Methods

This section dealt with design and methods. It involved research design, research method, data gathering instruments, and methods of data analysis among others.

4.1 Design and method

Mainly, descriptive design was employed. This is so, because descriptive design is useful for verifying and presenting the detailed picture of the existing situation (Yin, 2003). Besides, the findings were presented in a comparative manner for verifying commitment levels between the public and private primary schools. Moreover, quantitatively slanted mixed method was employed so as to make advantage of both quantitative and qualitative approaches. Specifically, concurrent design was used for its efficiency and relevance for gathering both quantitative and qualitative data. This enabled the researchers to make of advantages of the quantitative and qualitative methods in which weakness of one is compensated by strengths of the other Creswell, (2012).

4.2 Sources of data

Relevant data were collected from teaching and non-teaching staff members; namely teachers, principals, librarians, and supervisors; because these subjects are individuals living in the event and context of the issue being studied (Neuman, 2007). Secondary data were also collected from such sources as budget allocation documents and reports. Similarly, observation of school facilities and materials in place has been made with emphases on school buildings, and teaching materials.

4.3 Population and sampling

All public and private primary schools in the sampled Woredas and Town administration of Gedeo Zone, that is, Wonago and Kochore Woredas and also Dilla and Yirgachafe Town administrations, along with their staff, constitute target population. The Woredas and towns were selected based on availability of functional public and private primary schools in the same Woreda and/or towns. Besides, two (one public &one private) primary schools were selected randomly. Totally, eight schools were involved; that is, from two Woredas and two town administrations, four public and four private schools were sampled (i.e., one public and one private schools from the four targeted Woredas and town administrations. Regarding the subjects, a total of 120 participants (72 & 48 respectively from public and private schools) were selected. The lesser proportion of sample from private schools is attributed to the fewer number of staff population. Moreover, teachers in the sampled schools were chosen through simple random sampling technique; just for ensuring sampling fairness (Best & Kahn, 2003). On the other hand principals, libraries, and supervisors were sampled through purposive technique. Such a purposive sampling was employed to involve right participants who have rich data by virtue of their position as supported by scholars like Newman (2007). The sample size of teacher respondents is determined using the following formula as it stated by Yamane (1967), at 95 percent level of confidence as follows:

$$n = \frac{N}{1+N(e)^2}$$

4.4 Data gathering instruments

A five point (very high to very low) rating scale questionnaire was employed for gathering data from teachers and supportive or non-teaching staff; altogether 108 respondents. This is so because questionnaire is appropriate for gathering data from larger number of respondents in the shortest time possible (Creswell, 2012). Semi structured interview has been held with four supervisors and eight principals, totally with 12 interviewees; because these are relatively fewer and also individuals with richer data by virtue of their leadership position (Best & Kahn, 2003). The interview has been held with each for about an average 50 minutes in Amharic language to overcome language barrier. Documents such as schools' budget and educational statistical reports), materials assets were analyzed. Besides, statuses of school facilities were observed. Moreover, checklist was utilized for gathering data on staff profile, availability and status of books and

physical facilities.

4.5 Validity and reliability

Before the actual data collection, the instruments were given to three professionals for ensuring content validity. Based on their suggestions, two items were modified and one item was added. Besides, the instruments were pilot tested for verifying reliability. To this end, suggestions of George and Mallery (2003), which provide the following rules of thumb Cronbach's alpha coefficient > 0.9 excellent, > 0.8 Good, > 0.7 acceptable, > 0.6 questionable, > 0.5 poor and < 0.5 unacceptable was adhered to. The average Cronbach reliability coefficient was 0.88, which is good enough for application as discussed above.

4.6 Methods of data analysis

The data were analyzed through both quantitative and qualitative methods. Quantitative data were analyzed using SPSS software (version23). Specifically, questionnaire data were analyzed using descriptive tools such as frequency, means, and standard deviations. Besides, the results were comparatively analyzed using t-test as inferential tool for comparing means of respondents from the two schools categories. Moreover, Eta-Square (η^2) was employed for investigative contributions of variables in yielding differences. Furthermore, p-value of .05 was considered for judging whether or not statistically significant differences prevail. On the other hand, in line with the advice of Yin (2003), qualitative data were transcribed and grouped under the most appropriate theme where each datum belongs and then analyzed through narration.

5 Results and discussion

5.1 Introduction

This section encompasses analyses on three themes, namely manpower input, financial input, and physical & material inputs. One hundred thirty questionnaires were distributed for teachers and supportive staff of the sampled public and private primary schools of Gedeo zone out of which seven were unreciprocated and three were discarded. This makes the return rate about 92.3%. Following data analysis, discussions were made for showing either gaps and/or strengths by comparing results against theoretical bases or literature.

5.2 Manpower input

This subsection deals with comparative analysis of the schools' regarding availability appropriate staff in quantity and quality.

Table 1: Views on manpower input

Group Statistics								
	Items	Sch. Type	Mean	SD	t-value	Sig.	Eta-Square (η^2)	
							%	Difference
1	Perception on teachers' qualification as per the national standard	Public Private	4.14 4.06	.54 .76	.61	.54	0.30	Insignificant
2	Agreement to premise that subjects are taught by specialized teachers	Public Private	4.36 4.27	.68 .82	.66	.15	0.37	Insignificant
3	Perception on whether schools are led by professional leaders (qualified in educ leadership)	Public Private	4.28 3.41	.91 1.23	2.24	.01	4.08	Medium
4	Status pertaining to presence of qualified supervisors	Public Private	3.93 3.35	.93 1.41	2.5	.00	5.03	Medium
5	Overall commitment of the school in fulfilling relevant manpower/staff for offering quality	Public Private	3.88 3.47	.77 1.08	2.16	.00	5.13	Medium

As illustrated in Table 1, item 1, the respondents rated the extents of their agreement to the premise that schools are staffed with teachers of appropriate qualification to the grade level as suggested by ministry of education or regional education bureau. Accordingly, an independent-samples t-test yielded

the following statistics. There was no significant difference in scores for public (M=4.14, SD=.54) and private schools [M=4.06, SD=.76; t (118) =.61, p=.54]. Document analysis on qualification of teachers has validated the mystification beyond the opinion. The proportion of degree, diploma and certificate in the schools has been computed. Accordingly, the average teachers' qualification mix for public schools (in %) is 38.40, 59.90 and 1.70% whereas the average qualification composition (in %) is 37.10, 47.50, and 15.40% for private schools. The actual practice in both school types is much less than the national average, which is 81.0% of eligible qualification (MoE, 2023). However, teachers of higher qualification prevail in public schools. The worst of the private, in this regard is availability of about 15% of certificate teachers, where a minimum of diploma is required. In fact, except for those who are not willing to serve in remote rural areas teachers join private schools when they lack employment in public schools. Interviewee 6 is so genuine and uncovered that he joined private school after he missed employment in public school. It could be inferred that education quality in primary schools of the zone has been compromised and so is students' achievement as qualification of teachers plays a significant role in enhancing learners' performance (Rawat, 2023).

As shown in item 2 of the same Table, availability of teachers specialized in subjects was assessed. The independent-samples t-test resulted mean sores of 4.36 and 4.27 for the public and private schools. There was no significant difference in scores for public (M=4.36, SD =.68) and private schools [M=4.27, SD=.68; t (118) =.66, p=.15]. That is, teachers who major in particular subjects they teach were moderately fulfilled in both school categories. However, unlike the opinion based quantitative data, qualitative data on teachers' profile verified that in both school categories over 60% of teachers were below first degree let alone specialization. Similarly, interviewees were sincere and genuinely exposed scarcity of teachers in areas of natural science and English language and other subjects. For example, interviewee1 of public school and interviewee 4 of private school confirm severe shortage of teachers majoring in physics, chemistry and English language. Thus, it could be inferred that students' academic performance has been hampered because of teachers' under qualification, poorer mastery of subject matter and scarcity of teachers, mainly in such subjects as English and natural science. Majoring or specialization in particular subject is deemed to boost teacher's mastery in that particular subject. A number of studies, for instance conducted by Myrberg, Johansson and Rosén (2018) establish positive relationship between teachers' specialization and students' achievement.

Availability of school leaders who are qualified in educational leadership was also assessed, and an independent t-test generated the following results. The mean scores of high and moderate range were identified for the public and privates schooling categories respectively. There was significant difference in scores for public (M =4.28, SD =.91) and private schools [M =3.41, SD =1.23; t (118) =2.24, p =.01]. That is, relatively professional school leaders were available in public schools. The difference in means has moderate/medium effect size of 4.08% contribution to difference in education quality. Besides, almost all the interviewed principals of the public schools are certified in leadership, i.e., EdPM. That is, leaders with better qualification and experience were found in public schools. This might be due to government package of developing school leadership. The role of experienced leaders in school performance is indispensible and supported by empirical studies. For example, as verified by Rawat (2023), the working experience of school leaders is identified to be a key indicator in the promotion of school system and resulting in high completion rate of students.

An independent-samples t-test was conducted for assessing prevalence of qualified supervisors. The mean scores of high for public and moderate ranges for private schools were resulted. There was significant difference in scores for public (M= 3.93, SD =.93) and private schools [M=3.35, SD=1.41; t (118) =2,5, p=.00]. The magnitude of the differences in means has medium effect size, which can have about 5.03% contribution to difference in education quality. The interviewees too rightly verify absence of supervision in the private schools. Specifically, interviewees 6 and 7 lamented of the huge gap between public and private schools as far

as supervisory service is concerned. The better status of supervisors in public schools might be so, because government assigns cluster supervisors for public schools. Contribution of supervision in enhancing students' academic performance is essential as revealed in several studies. As confirmed by Maina and Vera (2016), there is a statistically significant relationship between supervision roles of heads and academic performance of students.

The overall commitment of the schools in fulfilling relevant manpower who would offer quality education was rated. The resulting mean scores were high for the public and moderate for the private schools. There was significant difference in scores for public (M= 3.88, SD =.77) and private schools [M=3.47, SD=1.08; t (118) =2.16, p=.00]. The magnitude of the differences in means has medium effect size, which can have about 5.13% contribution to difference in education quality. That is, public schools were found to be better committed in fulfilling right workforce. Assignment of right workforce on the right position is highly demanded, as human resource has an important role in improving the quality of schools because it makes a good contribution in improving the quality of education (Hadi, Iqbal & Sesmiarni; 2023).

To sum up, although higher mean scores were observed for the public schools, there were no statistically significant difference between the public and private primary schools of Gedeo Zone regarding availability of qualified teachers, teaching subjects by specialized teachers, experience of school leaders and availability of qualified supportive staff. However, there were significant differences between the two school types with prevalence of better qualified educational leaders, supervisors and higher commitment of public schools for staffing their school with relevant manpower and thereby provision of quality education. Overall, statistically significant difference between the two school types is found as far as manpower input is concerned.

5.3 Financial input

This subsection is aimed at analyzing of financial inputs in the public and private primary schools under consideration. To this end, major emphasis is made on adequacy of educational budget, remuneration and fairness among others.

Table 2: Views on financial input

Group Statistics								
	Items	Sch. Type	Mean	SD	t-value	Sig.	η^2	
							%	Difference
1	Allocation of adequate budget	Public	3.57	1.02	.36	.88	0.11	Insignificant
		Private	3.50	1.07				
2	Whether the school pays rational salary in line with staff's qualification & service	Public	3.46	.99	-1.3	.23	1.4	Insignificant
		Private	3.24	.97				
3	Whether schools allocate appropriate budget for research, training and development	Public	2.71	1.23	. 95	.30	0.76	Insignificant
		Private	2.50	1.09				
4	Overall commitment in allocating budget which enables to provide quality education.	Public	3.49	1.04	.57	.97	0.27	Insignificant
		Private	3.38	1.04				

Firstly, an assessment was made on whether the schools allocate adequate educational budget. An independent samples t-test was conducted and yielded mean scores of moderate level for both school types, and also absence of significant difference in scores for public (M =3.57, SD =1.02) and private schools [M =3.50, SD =1.07; t (118) =-.36, p =.88]. As computed from document analysis, average annual non-salary budget per students in public schools is about 62.69 ETB where it is about 40.80 birr in the private schools. This could hint better practice of budget allocation to prevail in public schools, which might have been caused due to block & school grants besides government budget. The interviewees in both school categories revealed their concerns about the meager financial input.

For instance, interviewee 4 from public schools and interviewee6 from private school briefed their worries. Here is what interviewee4 had to say ". . . for your surprise, we are getting 5000 Eth Birr block grant in a semester for more than 1400 students' what can be purchased for this?". Similarly, interviwee6 lamented of the total absence of such grants. Respondent to open ended item clearly mentioned two causes for scarcity of financial inputs in private schools: absence of block grant and owners' insatiable aspiration for profit by implementing economical course of action. The synthesis of quantitative and qualitative data verified insufficiency of financial resource in both schooling categories. It would be easy to infer that education quality has been suffering as a result of meager financial input in both school types. School funds are well used to avail enough teaching aids, to hire qualified teachers, and to train/develop teachers, etc; and all these activities can lead to improved students' outcomes (Nizeyimana, *et al*. 2023).

Secondly, an assessment was made with emphasis on whether the schools pay rational salary commensurate to staff's qualification & service. The mean scores for both school categories fell in the moderate interval. There was no significant difference in scores for public (M=3.46, SD=.99) and private schools [M=3.24, SD=.97; t (118) =-1.3, p=.23]. As computed from document analysis, average salary for holders of first degree, diploma and certificate teachers were found to be 8854, 6106 and 3340 ETB in public schools and 5036, 3943 and 3592 ETB in the private schools. Here is what interviewee8 had to respond quoting his own example: private school is not my priority; I'm serving in this private school even at lesser pay, just for rescuing myself from hardship of serving in periphery of public school. Both questionnaire and document analysis evidently verified prevalence of better pay in public schools. Even the issue of fairness against weekly load has been neglected. Average weekly teaching load for public schools is 21.5 periods and 26 periods for private schools respectively for the aforementioned salary ranges. The worst is the highest working hours a day in private schools (7 hrs average) unlike the single shift (4hrs average) in public schools. Such a huge variation in pay can be pushing factor for experienced teachers to leave. In fact, as rightly put by inerviewee 7, from private school, often teachers leave the school anytime without awareness and schools' readiness for replacement. Difficult working conditions may drive much of the difference in teachers' turnover and also salary variation can have impact on retention of teachers of better qualification and experience; and thereby significant impact on students' achievement. (Hanushek & Rivkin, 2007). That is, pay and related injustices, accompanied by other working conditions exacerbate teachers' turnover and this in turn would undoubtedly affects education quality.

As depicted in Table 2, third item, an assessment was made on whether the schools allocates adequate budget for research, training and development. To this end, independent samples t-test was conducted and resulted in mean scores of moderate range for both schools types. There was no significant difference in scores for public (M=2.71, SD=1.23) and private schools [M=2.50, SD=1.09; t (118) = .95, p=.30]. Interviewees 3 and 4 from public schools, verified presence of government sponsored training and development (career development) opportunities; however, school level short term trainings are nearly non-existent. As claimed by interviewee 6 and7, the situation is even worse in private schools as training & development itself is scant, let alone the budget. Thus, it would be concluded that except for government sponsored short term and career development opportunities in public schools by which public schools outperform, both school types undermined the role of training and development. However, human resource development plays a critical role in ensuring the delivery of quality education at primary, secondary and tertiary levels. In this regard, Abosede (2015) identified a strong relationship between and quality of personnel and school outcomes.

Lastly, the schools' overall commitment pertaining to allocation of financial resource toward ensuring education quality was compared. Accordingly, independent samples t-test was conducted, and there was no significant difference in scores for public (M=3.49, SD=1.04) and private schools [M=3.30, SD=1.04; t (118) =.57, p=.97]. The magnitude of the differences in the means was very small (percentage of η^2 = 0.27%). The findings indicate

that both school types are moderately committed for allocating budget which would enable them to provide quality education; even though public schools seem to be a bit better committed with very small variation. The lower practice of financial resource allocation might be attributed to the profit seeking goal of private schools, which they often reimburse through of utilization of teachers to the fullest; indeed exploitation. Failure to allocate adequate budget on education, particularly on teachers can have adverse effect on schools' effectiveness. Spending on teachers (which accounts for 50-80% of education spending) is billed in boosting teaching effectiveness (World Bank, 2023).

In a nutshell, the mean scores were a bit higher for public schools as far as budget allocation for recurrent cost, budget for research, training & development and the overall commitment pertaining to budgetary matters. However, in both schoolings allocation of only moderate level of financial resources has been verified. Overall, here is no statistically significant difference between the two school types as far as financial input is concerned.

5.4 Physical and material inputs

This subsection dealt with analyses of data on physical and material inputs in the schools under consideration. It includes analyses of empirical data regarding quantity and quality of buildings, sport fields, toilet, electricity, pipe water, library service, textbooks, teaching aids and the likes.

Table 3: Views on physical and material inputs

Group Statistics								
	Items	Sch. Type	Mean	SD	t-value	Sig.	η^2	
							%	Difference
1	Adequacy and quality of the school buildings	Public Private	3.57 3.31	1.12 .93	.1.31	.10	1.43	Insignificant
2	Adequacy of functional sport fields	Public Private	3.01 3.02	1.22 1.18	-.30	.51	0.07	Insignificant
3	Availability of toilets for staff and students	Public Private	3.67 3.83	1.20 1.10	-.77	.40	0.50	Insignificant
4	Presence of electricity installed to every room	Public Private	3.39 3.04	1.22 1.35	1.47	.54	0.25	Insignificant
5	Prevalence of functional pipe water	Public Private	3.33 3.02	1.31 1.26	1.3	.17	0.02	Insignificant
6	Provision of textbooks for students in all subjects	Public Private	2.40 2.81	1.23 1.32	-1.74	.83	2.50	Insignificant
7	Availability of library and reference books	Public Private	3.19 3.29	1.13 1.07	-.47	.47	0.19	Insignificant
8	Provision of teaching aids /media	Public Private	3.31 3.29	.99 .90	.08	.44	0.04	Insignificant

As illustrated in Table 3 first item, an independent samples t-test was conducted for assessing status (quantity & quality) of school buildings. The resulting mean scores for public schools and private schools were respectively high and medium. There was no significant difference in scores for public (M=3.57, SD=1.12) and private schools [M=3.31, SD=.93; t (118) =1.31, p=.10]. Majority of the public schools' buildings are made of bricks and only few were made of bricks & wood and rooms have average area is 45.5 m2 where as those of private schools are made of bricks, wood & bricks and wood combined and of about 36.07m2 area on average. That is, buildings are adequately prevalent in public primary schools than are in private schools' that is, public schools were known for larger compound and classrooms whereas private schools seem to have narrow compound and class-

rooms. Nevertheless, both school categories own a number of buildings made of wood and mud, which is far below the standard. Both schooling types undermined the role of comfy environment, buildings, class size, etc in quality of instruction. According to Asiyai (2012), school facilities are essential for sound education; and process of teaching, learning is affected by status of physical facilities such as size and quality of school buildings, classrooms, provision of furniture, and other physical inputs. In fact, plentiful studies have found gaps of about 5-17 percentile achievement variation among students in poor and in standard buildings (Earthman, 2002).

Secondly, an independent samples t-test was conducted for assessing availability and status of sport fields. The mean scores of moderate range were identified for both schools under study. There was no significant difference in scores for public (M=3.01, SD=1.22) and private schools [M=3.02, SD=1.18; t (118) = -.30, p=.51]. Sadly, observation checklist data confirm that only football field is functional in both, while others sport fields are either partly or totally non-functional. The worst result in private schools is commonness of diminutive school compound let alone the sport fields. The results affirm that both school types lack functional sport fields; almost none is better than the other.

Thirdly, an independent samples t-test was conducted for assessing status and availability of separate of toilets for staff and students for both males and females. The resulting mean scores were found to be high for both school categories. There was no significant difference in scores for public (M=3.67, SD=1.20) and private schools [M=3.83, SD = 1.10; t (118) = -.77, p=.40]. However, document analysis affirms that there are toilets for students and teachers of both sexes. Nevertheless, toilets vary in average areas/size, i.e., 30m2 in public schools and 5.76 m2 in the private schools. Indeed, there is no exception to the Zone under investigation in this regard. Nationally, 92.5% of primary schools have functional toilets for students and 69% of them have functional teachers' toilets (MoE, 2023). Despite variations in adequacy and quality, both school categories own toilets both for students and teachers and also for both male and female groups. This is quite pleasing that the schools are doing in line with suggestions of scholars like Akomolafe and Adesua (2016) who denote the positive roles of school facilities such as toilet, laboratories, recreational equipments, and so forth.

The status of electric service in the schools was assessed using independent samples t-test. The mean scores of moderate intervals were identified for both schooling types. There was no significant difference in scores for public (M=3.39, SD=1.22) and private schools [M=3.04, SD=1.35; t (118) =1.47, p=.54]. The moderate rating of the mean scores reveal absence of electric power installed to the entire rooms. The problem of electricity is severe nationally; particularly in rural primary schools. Nationally, only 27.7% of Primary and Middle schools have access to electricity (MoE, 2023).

As depicted in Table3, fifth item was meant for assessing status of water service in the schools. To this end, independent samples t-test was conducted and mean scores of moderate range were identified for both school categories. There was no significant difference in scores for public (M=3.33, SD=1.21) and private schools [M=3.02, SD=1.26; t (118) =1.30, p=.17]. The respondents were neutral to the premise about availability of pipe water. The fact that availability of clean/pipe water was rated only moderate could affirm absence of water service in some schools. The scarcity of pipe water cannot be surprising; even nationally only 36.2% of the primary schools have access to functional water supply (MoE, 2023).

Moreover, an independent samples t-test was conducted for rating respondents' level of agreement to availability of textbooks in all subjects to every student (in 1:1 ratio). The mean score for the public schools fell in the range of low, whereas that of the private schools fell in the moderate interval. There was no significant difference in scores for public (M=2.40, SD=1.23) and private schools [M=2.81, SD=1.32; t (118) =-1.74, p=.83]. Quantitative data portray better commitment of private schools regarding provision of textbooks for ensuring education quality. However, document analysis verifies that average student-textbook ratio is about 1:4 in public schools and over 1:5 in the private schools. The blended result of both quantitative and qualita-

tive data fittingly verifies scarcity of textbooks in both schooling categories. Undeniably, availability of textbooks in both schoolings is below national average, which is 1:3.5 at primary level (MoE, 2023). Even, it could be seen that the average national textbook-pupil ratio/TPR (1:3.5) is much less than the standard, which is 1:1. Certainly, quality has been compromised both nationally and in Gedeo Zone public and primary schools as well. Sadly, this is against results of several empirical studies (Attakumah & Tulasi, 2015), which corroborate existence of strong positive correlation between availability of textbook and academic achievement.

Further, an independent samples t-test was conducted for rating views on availability of library and updated reference books. The mean scores for both schooling types were identified to be moderate. There was no significant difference in scores for public (M=3.29, SD=1.07) and private schools [M=3.31, SD=.99; t (118) = -.47, p=.47]. Document analysis shows that in both school types, prevalence of reference books is rated good and moderate. It would be inferred that none of the schooling outperforms than the other as far as the status of library and reference books are concerned. Even nationally, only 39.2% of primary schools have functional libraries (MoE, 2023), and shortage of reference books is expected problem, which might have been hampering education quality in the Gedeo Zone.

Finally, as indicated in Table3, the last item, an independent samples t-test was conducted for assessing provision of appropriate teaching aids (e.g., science kit). Accordingly, moderately rated mean scores were resulted both for the public and private schools. There was no significant difference in scores for public (M=3.31, SD=.99) and private schools [M=3.29, SD=.90; t (118) = -.08, p=.44]. Observation checklist indicates that there were science kits in both school types; yet, this cannot be guarantee that teachers are supporting teaching with science kit. Besides, the so claimed pedagogical centers in both school categories were overwhelmed with teacher made charts and pictures. The severity of such a scarcity of teaching media has been naturalized obstruction against education quality is schools of the country; as only 11% of primary schools of the country own functional laboratory and 41.4% of them have pedagogical center (MoE, 2023). The pupils are derived of their opportunity of making advantage of media in teaching-learning process advocated by international organizations. For example, according to UNESCO (2005) teaching inputs such as books, audio-visual, educational technology, etc are the most determining factors of quality education.

Generally, provision of physical and material resources in both school types could not exceed moderate rating; and there is no statistically significant difference between the two school types as far as materials input is concerned. However, the overall comparison revealed that public schools seem to be a bit better committed regarding possession of physical and provision of material inputs. Specifically, the public schools were found to surpass with regard to quantity and quality of buildings, electricity, water services and teaching aids. However, better commitment was verified in private schools concerning availability of better toilets, provision of educational materials, and textbooks. Equity, according to the Center for Public Education (2016), is achieved in education when all students receive the resources, and policymakers aim to ensure an equal and fair distribution of the resources (Barrett, *et al.*, 2019).

6 Discussion

Human, financial, materials, time and information are resources required by organizations for discharging functions. Above all, human resource is the most determinant success factor since humans control other resources. This particular study identified existence of teachers, school leaders and supervisors of better qualification and experience; yet, in both school categories ineligible workforces were found serving pupils, who would pay for the mess the sooner or later. The role of qualified, experienced and professional staff in booting education quality has been confirmed by scholars in the field of education. For example, according to Rawat (2023), teachers' qualification and content mastery play a significant role in improvement of academic performance of students, and experience of school leaders is key indicator in the promotion

of school system and resulting in a high level of students' completion. Besides, as confirmed by Maina and Vera (2016), there is a statistically significant relationship between supervision roles of heads and academic performance of students.

Besides manpower, finance is among the most decisive inputs in organizations. Despite tiny surpass in public schools, scarcity of financial input was verified in both schooling categories. The scarcity of financial input in private schools could not be surprising; because profit is their ultimate goal and they are denied special support such as school grants and block grants, which public schools are entitled to secure. Finance in organizations, is analogous to life blood in organisms. Hiring quality workforce, training and retaining them, availing enough teaching aids/media/technology, educational materials & facilities, etc, entail allocation of sound financial input (Nizeyimana, *et al*., 2023). Indeed, strong correlate between school outcomes and quality of personnel has been identified (Abosede, 2015) and particularly, spending on teachers is payable in getting more value in boosting teaching effectiveness (World Bank, 2023); the reverse would be true with scarcity.

The third input against which the public and private primary schools were compared was availability of physical and material resources. Both school categories own a number of buildings made of wood and mud (i.e., below the standard), moderately rated toilets, electricity, and water services. Both schools could be blamed for severe shortage of textbooks and reference books and for almost total absence of laboratory, pedagogical centers and teaching media or technology; although these are compulsory. According to Asiyai (2012), school facilities and materials (e.g., buildings, classrooms, toilets, electricity, water, books, audio-visuals, educational technology, etc) are vital for provision of quality education. Studies affirm that about 5-17% achievement difference among students is attributed to variation in school facilities and materials (Earthman, 2002); and these must be among rationales why international organizations like UNESCO (2005) stress provision of such facilities and materials to be compulsory. Scarcity and disparity in educational facilities and materials not only hampers education quality, but also refute adage of equity. Equity, according to the Center for Public Education (2016), is achieved in education when all students receive the resources, and policymakers aim to ensure an equal and fair distribution of the resources (Barrett, Treves, Shmis, Ambasz & Ustinova, 2019).

Conclusion and implications

Based on major findings, the following conclusion could be drawn. Both the public and private primary schools were found making minimal efforts for ensuring education quality. However, considerably significant weaknesses were identified in both. Specifically, public primary schools of Gedeo zone were found to be better committed in investing on manpower, financial inputs and provision of educational facilities. Despite government assistance for increased staffing, public schools do not fully dedicate themselves to the teaching-learning process. On the other hand, private schools are motivated by competition and profit. Accordingly education quality suffers from financial limits, particularly in smaller towns; despite excelling in instructional process and material resource. Overall, education quality in the zone is hindered by a lack of sufficient human, financial, and material resources in both school types. This emphasizes how urgently the zonal education bureau, school administrators, teachers, parents, and the community need to work together. To guarantee fair and competitive educational results, emphasis should be placed on enhancing the teaching-learning process in public schools and resolving resource shortages in the private ones.

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Ethical issues

First and foremost, the authors secured ethical clearance before gathering the data. Besides, the schools and participants were informed about the purpose of the study and asked for permission and willingness to take part in the study. Moreover, the authors duly ensured ethical principles pertaining to anonymity of the schools and participants while reporting the results.

Declaration of Competing Interests

Regarding the publishing of this paper, the authors affirm that there are no conflicts of interest.

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Effects of Nomophobia, Academic Distress and Introvert Personality on Academic - Achievement among Dilla, Hawassa, and Wachamo University Students

Abrham Petros Wontamo[1], **Markos Malimo Setena**[1,*], **and Alemayehu Brehanu Areda**[1]

[1] Department of Psychology, Institute of Education and Behavioral Sciences, Dilla University

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Abstract

In today's digital age, the pervasive use of smartphones has given rise to nomophobia, or the fear of being without one's mobile device. This study investigates the impact of nomophobia, academic distress, and introverted personality traits on the academic achievement of university students at Dilla, Hawassa, and Wachamo Universities. A correlational design was utilized, employing stratified and simple random sampling to select 432 participants from 17,280 students, alongside 9 purposively selected teachers for interviews. Data analysis using SPSS Version 25.0 revealed significant effects of nomophobia, academic distress, and introverted personality on academic achievement (F (3, 406) = 7.52, p =.032). Notably, nomophobia scores differed between males (M = 3.81, SD = 2.23, N = 254) and females (M = 3.12, SD = 3.41, N = 157), as did academic achievement scores (males: M = 4.13, SD = 4.091, N = 253; females: M = 4.85, SD = 3.950, N = 157), both at the.05 significance level. These findings underscore the need for interventions to mitigate the impacts of nomophobia and academic distress, particularly for introverted students, suggesting that universities implement workshops and counseling services focused on digital wellness and stress management to enhance academic performance and contribute to students' long-term success.

1 Introduction

Academic achievement among university students is a critical indicator of educational success and future career opportunities. However, various factors can significantly influence this achievement, including nomophobia, academic distress, and personality traits such as introversion. Recent studies indicate that the pervasive use of smartphones has led to an increase in nomophobia, which not only heightens anxiety levels but also distracts students from their academic responsibilities (Yildirim & Correia, 2015; Keles *et al*., 2020). This excessive reliance on mobile devices can detract from students' focus and motivation, ultimately impacting their performance. Today's students, especially those attending universities, spend more time using their phones for various purposes. A study by Lepp, Barkley, Sanders, Rebold, and Gates (2013) suggested that as everyday life becomes more digitalized, using a mobile phone for daily tasks becomes the norm, which in turn fosters nomophobia, academic distress, and low social contact among university students.

These days, not every college student possesses a smartphone (King, 2013). The overuse of this technology has created conditions for nomophobia. There are several ways to describe nomophobia; it is defined as "the fear of being without your phone" by Cherry (2020). The pathological fear or anxiety associated with not having a mobile network, being out of communication, or having

* Corresponding Author; Email: markosmalimo1@gmail.com
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insufficient balance or charge is known as nomophobia. This fear is also referred to as "no mobile phone phobia" (Gezgin & Akr, 2016; Yildirim & Correia, 2015). Research on mobile phone use by college students frequently examines the detrimental effects of this usage, usually focusing on the negative impacts of non-academic use, such as distracting the student, encouraging cheating, and causing distraction for neighboring students (Benjamin, 2016). Consequently, students' ability to concentrate on their regular tasks is adversely affected (Yildirim & Correia, 2015).

Stress is an inevitable component of daily life for humans. Regardless of age, profession, social standing, race, cultural background, or any other factor, everyone experiences stress (Lal, 2014). Daily stressors on campus, such as exams, grades, group projects, and academic expectations, are among the biggest sources of stress for university students and currently attract the interest of researchers (Misra & Michelle, 2018). Academic distress is the combined effect of academic-related requirements that exceed an individual's available adaptive resources. Students are significantly affected by academic distress due to the multitude of stressors they encounter, such as the pressure to perform well in class and the need to succeed. Research by Lal (2014) defines academic distress as a condition in which a student's cognitive resources, both internal and external, are insufficient to meet the demands of their studies. Various studies indicate that overcrowded lecture halls, a lack of resources, a heavy workload from courses or assignments, academic pressure, limited opportunities, and intense competition all contribute to fear, tension, and anxiety, which in turn affect students' academic performance and practices (Chua, Ng, & Park, 2018). Students' lives are filled with academic stress, which seems to have a detrimental impact on their mental and physical well-being as well as their academic success (Prakash, 2016).

Every human being on the planet has a unique personality with distinct traits; no two people are the same. One of the most crucial concepts in psychology research is personality, which influences whether students succeed or fail in their academic endeavors in both elementary and university education (Hakimi *et al*., 2011; Prakash, Singh, & Yadav, 2016). A person's behavior, habits, nature, and character define their personality and serve as their distinguishing characteristics (Aşçi *et al*, 2015). Heredity and environment are the two main factors that shape a person's personality, and both can contribute to whether someone has positive or negative traits. An introvert is a personality type that tends to exhibit traits such as being quiet and shy, being more cautious, managing their emotions well, having few friends, finding it difficult to build relationships, enjoying solitude and concentration, preferring to work independently, and being less social (Afshan, Askari, Sam, & Manickam, 2015). When it comes to group projects and class discussions, introverted students often find it challenging to voice their thoughts or opinions (Prakash, 2016).

Recent studies on nomophobia among university students reveal mixed findings regarding gender differences. Bülbüloğlu and Yılmaz (2021) found that female students exhibit higher levels of nomophobia, while Korkmaz *et al*. (2020) highlighted significantly elevated scores among females, suggesting greater dependency on smartphones. Females tend to engage more intensively in smartphone use, especially for social media, which heightens anxiety related to disconnection (Yildirim & Correia, 2021). Additionally, psychosocial factors such as emotional dependence and socialization patterns contribute to greater emotional distress among females when separated from their devices, exacerbating anxiety and fear of missing out (Aydın *et al*., 2021). However, Hossain and Hossain (2022) reported no significant gender differences in nomophobia levels. Korkmaz and Demirtaş (2023) also indicated that gender did not significantly influence nomophobia, highlighting the need for further research on this complex issue. A systematic review by Korkmaz *et al*. (2020) found that both genders exhibit similar levels of nomophobia, suggesting that the fear of being without a mobile phone affects male and female students equally. Furthermore, a meta-analysis by Voyer and Voyer (2021) reinforced these findings, indicating that gender does not significantly predict nomophobia levels. Overall, the research emphasizes that nomophobia is a widespread issue affecting all students, regardless of gender (Mendez & Gonzalez, 2022; Smith *et al*.,

2023).

Nowadays, the majority of university students experience a range of unsatisfying practices due to issues with nomophobia, academic distress, and introversion. University students often squander their study time searching for answers online; if they are unsuccessful, they may experience anxiety and panic. Educational institutions are concerned that this could lead to poor academic performance. While scholars in industrialized nations have shown interest in this topic, it remains largely untapped in developing countries like Ethiopia. To fully understand the impact of academic stress, introversion, and nomophobia on academic practices and achievement, the researchers believe that additional research is necessary. Thus, the main objective of this study is to examine the effects of nomophobia, academic stress, and introverted personality type on academic practices and achievement among students at Dilla, Hawassa, and Wachamo universities.

To the best of the researchers' knowledge, nomophobia, academic distress, and introverted personality types seem to have significant negative effects on academic practices and achievement among university students. However, there is a knowledge gap in the literature regarding the effects of nomophobia, academic stress, and introverted personality on academic practices and achievement in the study areas. Additionally, the researchers undertook this study because there have been no local studies in this field. Most existing research has focused on examining the effects of nomophobia on academic achievement, gender differences, and usage duration at the international level. Nationally, only one study on nomophobia and academic achievement has been conducted at Wollega University among health science students, while studies on the effects of introverted personality and academic distress on academic achievement have involved small sample sizes. Furthermore, no comprehensive studies have been conducted on the combined effects of nomophobia, academic stress, and introverted personality on academic practices and achievement among university students. Thus, this study is designed to fill the previous research gaps and the needs of local research. Based on the backdrop of the existing problem, the following questions are formulated for inquiry to attain the intended research objectives. As a result, this study was focused on the following research questions:

1. To what extent do nomophobia, academic distress, and introverted personality predict academic achievement among the study participants?
2. Is a statistically significant difference existing between Nomo-phobia across sexes among the study participants?
3. Is a statistically significant difference existing between academic achievements across sexes among the study participants?

Objective of the study

General objective of the study

The major objective of this study is to investigate the effect of Nomophobia, academic- distress, and introvert personality on academic practice and achievement among students at Dilla, Hawassa, and Wachamo universities.

Specific objectives

1. To examine the extent of nomophobia, academic distress, and introverted personality predict academic achievement among the research participants.
2. To scrutinize the extent of the difference between Nomophobia across sexes among the study participants;
3. To find out the extent of the difference between academic achievement across sex among the study participants;

Operational definition of the terms

Academic-Achievement: In the present study, it is operationally defined as a ratio level measurement that refers to the respondents' total score on the Grade Point Average (GPA) during the data collection period.

Academic distress: is the body's worrisome symptom due to an imbalance of academic demand or exceeding adaptive capabilities. In this study, it is operationally defined as a ratio level measurement

that refers to the respondents' total score on the academic stress Scale during the data collection period.

Introvert personality: In the present study, it is operationally defined as a ratio level measurement that refers to the respondents' total score on the adapted introvert personality Scale during the data collection period.

Nomo-phobia: is a specific form of phobia defined as a feeling of discomfort or anxiety caused by the absence of a mobile phone). In the current study, it is operationally defined as a ratio level measurement that refers to the respondents' total score of the Nomo-phobia Scale during the data collection period.

1.1 Conceptual Framework

This is the framework on effects of nomophobia, academic distress, and introverted personality on academic achievement.

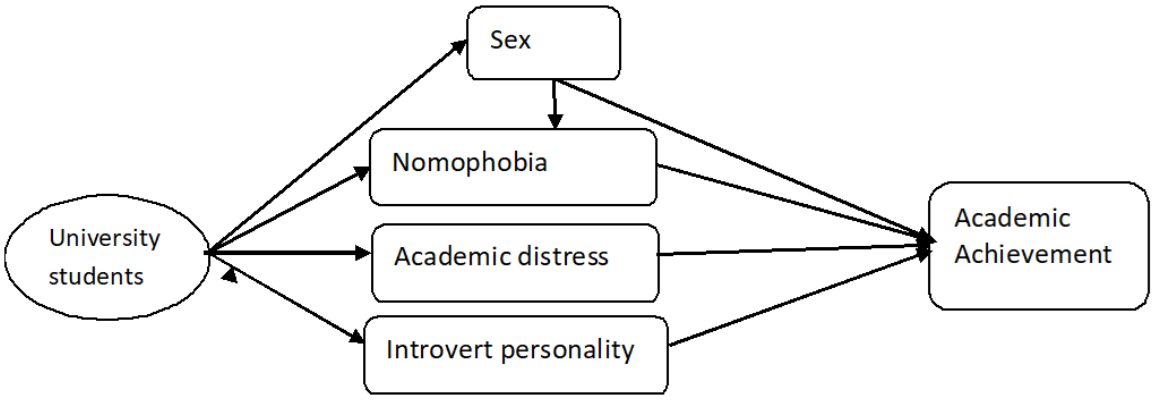

Figure 1: Conceptual Framework between Study Variables

According to Figure 1 above, the researchers made a brief discussion on the contents in the suggested framework regarding the effects of nomophobia, academic distress, and introverted personality on academic achievement. This conceptual framework shows the dependent variables, which are academic achievement, while the independent factors are nomophobia, academic distress, introverted personality, and sex. The academic achievement depends on the aforementioned four variables.

2 Research Design and Methods

2.1 Study area

To clarify the research problem, it is essential to provide background information regarding the study area. This research was carried out at Dilla, Hawassa, and Wachamo Universities because of their accessibility and reliable transportation options. These locations were chosen to help manage the research effectively within budget, time, geographic, and weather limitations, while also ensuring that sufficient data could be gathered to improve the reliability and validity of the findings. As a result, the study was restricted to Dilla, Hawassa, and Wachamo Universities.

2.2 Study design, and period

From May 21 to June 13, 2023, the researchers collected quantitative and qualitative information gathered from selected students and teachers. A correlational research design is beneficial as it allows researchers to explore the strength and direction of relationships between variables, such as nomophobia, academic distress, and academic achievement, without manipulation. This method integrates both quantitative and qualitative data for a comprehensive understanding, identifies patterns that can inform further research, and offers flexibility to adapt to various contexts.

2.3 Study participants

There were 17,280 students (9724 M & 5756 F), from this, Dilla University, 5205(2811male & 2394 female), Hawassa University,6311 (3766 male &

2545 females) and Wachamo University, 5764 (3147 Male and 2617 Female) who were available during the data collecting period.

2.4 Sample and sampling techniques

To select participants for this study, a mixed probability sampling approach combining stratified and simple random sampling enhances the study by ensuring representation of key subgroups (university, year level, and gender), reducing selection bias, and increasing precision in estimates. This method allows for efficient resource use, facilitates meaningful comparisons between groups, and ultimately improves the generalizability and reliability of the findings.The final sample included 432 students from three universities, covering all year levels and gender categories, with a 10% contingency included. Sample sizes were determined using Krejcie and Morgan's (1970) sample size calculation formula. Consequently, the population (N = 17,280) was assessed with a 95% confidence level and a maximum error margin (e) of 5% for the entire population. Based on the assumptions made above, the sample size will be:

$n = \frac{N}{1+N(e)^2}$

Equation 1: Formula to estimate sample size from the given population size, Where, n = the desired sample size, N = total population, and e = the maximum discrepancy (.05). Therefore, $n = \frac{17{,}280}{1+17{,}280(0.05)^2}$=393. Considering the response rate of 10% of the sample size (n = 393*.10 =39). Hence, the sample size accounts for 393 + 39 = 432.

2.5 Data collection instrument

In this study, the primary source of data was used. The primary source of data was distributed to 432 actual samples of the study through a questionnaire (Likert Scale) but clear data was collected from 410 students, and in-depth interviews with nine teachers.

2.6 Methods of data collection

To gather reliable and well-organized information the following procedures were used for the Likert Scale survey questionnaire, and In-depth interview.

2.7 Questionnaire

Nomophobia measured by a five-point Likert Scale questionnaire adapted by the researchers from (Yildirim, C.& Correia, A.P, 2015). Initially, the instruments were Adapted and checked by an English Language expert and then translated into the Amharic language. They modified and translated the questionnaire into Amharic (the local language) in order to make it clear to the respondents. The total number of indicators/ items are 10. Examples from the items; If I did not have my smartphone with me, I would feel anxious because my constant connection to my family and friends would be broken.

Academic stress was measured by a five-point Likert scale questionnaire adopted by the researchers (Sheu *et al*., 2014). This measure contains 10 items (e.g., "How often have you felt nervous or stressed because of schoolwork?"), rated using a 5-point (1–5) scale. After reverse scoring four positively stated items, higher scores indicate higher levels of perceived academic stress. The Cronbach's alpha for this measure was.81. Initially, the instruments were Adapted modified, and checked by an English Language expert and then translated into the Amharic language. They modified and translated the questionnaire to be clear for the respondents.

Introvert personality is measured by a five-point Likert scale questionnaire adopted by the researchers (Greg A. Grove., 2016). This measure contains 18 items (e.g., " Do you like to mix socially with people? "), rated using a 5-point (1–5) scale. Initially, the instruments were Adapted modified and checked by English Language expert and then translated into Amharic language. They modified and translated the questionnaire in order to be clear for the respondents.

2.8 In-depth interview

An in-depth interview is a method used to gather detailed information about a participant's perspective on a research topic, with the aim of capturing a comprehensive and vivid picture. For this particular study, the researcher purposefully selected 9 teachers (7 males and 2 females), with 3 teachers chosen from each university. Each interview

session lasted for a duration of thirty minutes, and every interviewee from the sample participated in an individual session.

2.9 Document Observation

In this study, the researcher collected the grade point average (GPA) of students from the selected universities registrar office based on their ID No that were collected when they filled out the questionnaire. The participants who did not write their ID No when they filled out the questionnaire were not taken from the registrar office, and automatically, they were excluded from being part of the analysis of the study.

2.10 Data collection procedure

The researchers organized the adapted questionnaires and, then translated it into the Amharic language by subject experts to ensure clarity for the participants. When the questionnaires were ready for the survey, then an introductory letter was collected from the department of department of Psychology field research to be allowed access to certain relevant documents and some valuable information which researchers needed for the study. The introductory letter was handed to the sample universities. A total of 410 copies of questionnaires were produced by the researchers and distributed to the sample students of 3 selected universities. The instruments were administered with field assistants, who were trained on questionnaire distribution and test administration. The participants filled out the questionnaire in the presence of the researchers and their assistant. Ample time was provided for participants to comprehend and complete the questionnaire. The data collection started on May 21st and ended on June 13, 2023, and lasted 30 minutes per individual. After the completion, the researcher collected back the questionnaires for analysis.

Table 1: Internal consistency coefficient for the scale

Scale	Total items in the original scale	Cronbach alpha for the pilot study	Cronbach alpha for the modified scales
Nomophobia	20	.95	.863
Academic Distress	20	.84	.801
Introvert personality	22	.81	.789
Academic Practice	18	.88	. 890

Data analysis In this study, the researcher employed both qualitative and quantitative data analysis techniques. The collected quantitative data were edited, coded, summarized, and analyzed using SPSS software. Different statistical analyses were applied after the data was coded and entered into the computer via SPSS version 20. The quantitative data was analyzed using descriptive and inferential statistics, including Multiple linear regression and independent - t-test was used. Qualitative data began with coding, classifying, and categorizing the obtained text data from interviewees through note-taking and tape recording, into concepts or codes. The qualitative information from the interview was transcribed by the investigator in the local language, Amharic. The transcription was done word for word from the audio recordings. Various speech figures or body languages expressed by interviewees were taken into consideration during the translation process.

Validity and Reliability The content validity of the instrument was checked by five experts on the subject matter. The three experts were PhD candidates in the English language department at Dilla University. The valuable comments and feedback from experts helped the researcher in validating of the instrument by taking into account the experts' suggestions through modification.

A pilot study was conducted to check the reliability of the instrument and to get an insight into the instrument which measures what the researcher intends to test and also to make modifications based on the result of the pilot study before administering the instrument for the main study. The questionnaire was carried out for pilot study with students who were equal level in education or ability within

the college with the main samples (participants) of the study. Those students who were included in the pilot study was not included in the actual part of the study.

3 Results

The researcher used different statistical methods to analyze the findings of the research by answering basic research questions.

Hypothesis 1: The extent of Nomophobia, academic distress and introvert personality no predict on academic achievement among study participants.

Table 2: Multiple linear regression was employed extent of Nomophobia, academic distress and introvert personality predict on academic achievement

Model Summary [b]											
Model	R	R Square	Adjusted R Square	SE of the Estimate	R Square Change	Change Statistics				Standardized beta coefficient	Durbin Watson
						F Change	df1	Df2	P		
1	.058[a]	.003	-.006	.31679	.003	7.52	3	406	.032	28	1.893

a. Predictor: (constant), Nomophobia, Academic distress, introvert personality
b. Dependent variable: academic achievement of participants'

To analysis the hypothesis, the researchers employed multiple linear regression models were compared. Preliminary analyses were conducted to ensure no violation of the assumptions of normality, linearity, multicollinearity and homoscedasticity. A test of the full model for containing three independent variables against the constant-only model was statistically significant (F (3, 406) = 7.52, p =.032) and explained 28% (R2 =.28) of variance in academic achievement. The three variables made a significant contribution to the model. Only one academic achievement dimension, (β =.28, p <.032), made a significant contribution to the model.

In support of this, key participants of interview from teachers: affirmed that:

> *Nomophobia can impair cognitive functions such as memory, attention, and problem-solving. Students may spend significant amounts of time on their phones, checking messages or engaging in non-academic activities, which can kill their study time. Excessive smartphone use can lead to distractions during study time, impacting concentration and productivity. Students may be more inclined to check social media, play games, or engage in other non-academic activities, which can hinder their ability to focus on their studies. This can result in rushed or incomplete assignments, inadequate preparation for exams, and ultimately lower academic performance. As a result, they may struggle to meet deadlines or have to sacrifice quality for timeliness, negatively impacting their academic achievement.*

> *Academic distress can have a significant impact on the academic achievement of university students. It can manifest in various ways, including increased stress levels, anxiety, depression, burnout, and decreased motivation. distress can hinder students' cognitive functioning, concentration, and memory retention. It can also lead to procrastination, poor time management, and reduced engagement in learning activities. As a result, students may struggle to meet deadlines, perform poorly in exams or assignments, and experience a decline in their overall academic practices. Persistent academic distress can also lead to a loss of interest in studies, disengagement from educational goals, and even dropout from university. Excessive stress can lead to feelings of anxiety, depression, and burnout. These emotional challenges can further impede academic achievement. Also, it can lead to decreased motivation and engagement in learning activities which may experience a loss of interest in their studies and a decline in their desire to excel academic achievement.*

An introverted personality can have an impact on the academic achievement of university students. Introversion is a personality trait characterized by a preference for solitude, introspection, and a tendency to be more reserved and thoughtful in social interactions. While introverts may not typically seek out large group engagements. Collaboration and networking are important aspects of academic life. While introverts may find large social gatherings or networking events challenging, they can still develop meaningful connections on a more individual level. Introverts may prefer one-on-one meetings or smaller group collaborations, where they can form deeper connections and contribute their unique perspectives. For introverted students, the learning environment and social dynamics of university can present certain challenges. Many academic settings emphasize group work, class discussions, and active participation, which may not align with the natural inclination of introverted individuals. They may find it more difficult to engage in class discussions, speak up in large groups, or form study groups easily. This can sometimes lead to feelings of anxiety or discomfort in social settings, potentially hindering their academic performance.

In contradiction to this, key informants of interviews from teachers: said that

Introverted students often thrive in quieter, more reflective environments where they can focus deeply on their studies and engage in independent learning. They tend to excel in tasks that require concentration, critical thinking, and extensive reading or research. Therefore, they may perform exceptionally well in individual assignments, written exams, or research projects that allow them to leverage their introspective nature and analytical skills. it's important to recognize that introversion is not synonymous with poor academic performance. Many introverted individuals excel academically by utilizing their strengths, such as their ability to concentrate for extended periods, their attention to detail, and their introspective thinking. Introverted students can often bring unique perspectives and insights to their academic work.

Hypothesis 2: There is no significant gender difference in Nomophobia.

Table 3: Independent t-test of difference in Nomophobia behavior between male and female students

	Male			Female					
	M	SD	n	M	SD	n	Df	T	P
Nomophobia	3.81	2.23	253	3.12	3.41	157	407	1.121	0.004

α=0.05

Table 3 shows the descriptive statistics of students' Nomophobia among genders; it reveals that the male students had a slightly higher mean score of 3.81, with a standard deviation of 4.23 in Nomophobia behavior associated with the female counterparts who had a mean score of 3.12, with a standard deviation of 3.41 at.05 significant level. The independent t-test result reveals significant differences between males and females on the level of Nomophobia. [t (407) =1.121, p=0.004] at P* <.05 significant level. Given that, a statistically significant difference was established, the null hypothesis was rejected.

In support of this, key participants of the interview from teachers: affirmed that:

I hope that females may experience higher levels of nomophobia compared to males. This could be attributed to various factors, including differences in socialization, communication patterns, and how individuals use their mobile phones. Females might be more likely to use their phones for social interactions and maintaining relationships, which could contribute to a higher level of dependence and anxiety when separated from their devices.

In contradiction to this, key informants of interviews from teachers: said that:

I don't think Nomophobia has any significant gen-

der differences in nomophobia. These findings suggest that the experience of nomophobia may be influenced by individual differences, personal circumstances, and cultural factors rather than gender alone. It is also important to consider that the prevalence and impact of nomophobia can vary across different populations.

Hypothesis 3: There is a statistically significant gender difference in academic achievement.

Table 4: Independent t-test of difference in academic achievement between male and female students

	Male			Female					
	M	SD	n	M	SD	n	Df	T	P
Academic Achievement	4.13	4.091	253	4.85	3.950	157	407	1.061	0.012

α=0.05

Table 4 shows the descriptive statistics of students' academic achievement among genders; it indicates that the male students had a slightly lower mean score of 3.79, with a standard deviation of 3. 91 in academic achievement associated with the female counterparts who had a mean score of 4.25, with a standard deviation of 4. 83 at P* <.05 significant level. The independent t-test result reveals significant differences between males and females on the level of Nomophobia. [t (407) =1.061, p=0.012] existed between gender and academic achievement.

In support of this, key participants of the interview from teachers: affirmed that:

Historically, there have been observed differences in academic achievement between genders, with some studies suggesting that females tend to outperform males academically. Factors such as motivation, study habits, and engagement in learning have been explored as potential contributors to these differences. Additionally, females have been found to have higher rates of university enrollment and graduation in many countries.

In contradiction to this, key informants of interviews from teachers: said that

However, it is important to consider that gender differences in academic achievement are not universal and can vary across disciplines, cultures, and contexts. Other studies have found no significant gender differences or even observed males outperforming females in certain academic areas. It is crucial to avoid generalizations and recognize the inherent diversity and individual variations within each gender.

4 Discussion

The major purpose of this study was to explore the effects of nomophobia, academic stress, and introverted personality on academic achievement among university students. The present study findings discussed with previous studies are as follows.

H1: To what extent do Nomo-Phobia, Academic distress, and introverted personality predict academic achievement among study participants?

The current study demonstrates that three factors, namely nomophobia, academic stress, and introverted personality, have a statistically significant impact on the academic achievement of the participants. The findings regarding nomophobia align with previous research that suggests the use of phones in the classroom leads to disengagement, distractions, and lower GPA (Adnan & Gezgin, 2016; Froese *et al*., 2012; Lee *et al*., 2017; Mendoza *et al*., 2018; Thornton *et al*., 2014). Empirical evidence indicates that approximately 30% of information is lost when students are texting while taking notes during a lecture (Froese *et al*., 2012). Moreover, further research supports the notion that a ringing phone in class disrupts not only the individual receiving the call but also others who hear the ringing. Even notifications on vibrate mode are disruptive and decrease individuals' performance on tests regarding lecture content (Lee *et al*., 2017).

Contrary to the aforementioned findings, a study has revealed that the mere presence of a cell phone, even if it does not belong to the individual, can diminish attention (Thornton *et al*., 2014). Despite

the evidence highlighting the disadvantages of having a phone in the classroom, students persistently use their cell phones as they are reluctant to forgo the benefits offered by mobile technology (Mehdipour & Zerehkafi, 2013). Furthermore, research indicates that college students believe that utilizing their phones to access external information and supplement their comprehension of course content enhances their learning experience (Ali *et al*., 2020). Some studies have even demonstrated that cell phones can be advantageous for self-directed learning in certain situations (Mehdipour & Zerehkafi, 2013; Rashid & Ashgar, 2016). These findings provide optimism that cell phones could potentially be employed as innovative teaching strategies, particularly in online learning environments.

According to Thornton *et al*.2014), academic stress has been found to impede and hinder learning. Sohail (2013) conducted a study on medical students to investigate the impact of academic stress on academic success and found a significant negative relationship between academic distress and academic achievement. Similarly, Ali *et al*. (2020) indicated that students experience significant stress in their academic lives, which negatively affects their academic performance. The study found by Lee *et al*., 2017) reported that academic distress contributes to lower academic performance. Shukla, Tombari, Toland & Danner (2015) concluded that parental support catalyzes academic success and a negative correlation between academic stress and academic outcomes.

Contrarily, Chua, Ng & Park (2018) discovered that university students did not anticipate a decline in academic performance despite experiencing high levels of academic distress. Jones (2018) highlighted that student anxiety can lead to academic concerns. Similarly, Bataineh (2013) found no substantial impact of academic stress on students' academic achievement. However, the negative correlation between academic stress and academic performance was influenced by acquired resourcefulness. High levels of academic stress adversely affected the grades of students with low resourcefulness, while it had no impact on highly resourceful students.

The presence of an introverted personality in an active learning classroom can lead to heightened anxiety and performance pressure. Collaborative learning environments may not align well with the traits of introverted students, causing them to experience increased levels of pressure and anxiety (Green *et al*., 2019). It is important for teachers to expand their understanding of classroom participation in order to provide students with more opportunities for learning and success (Rosheim, 2018). When instructors employ active learning techniques without considering the needs of introverted learners, it can result in an unfair learning environment. The fast-paced and dynamic nature of active classrooms often does not allow introverted students sufficient time to process information and formulate a response (Rosheim, 2018).

In contradiction to the present study, students with introverted personalities have a much higher level of concentration and motivation than extroverts when carrying out physical education lectures (Hartono, Berliana, & Mulyana, 2019). The same finding was reported by a previous study which explained that higher academic achievement in students with introverted personality types was due to their having effective study habits and higher concentration abilities in the classroom (Hakimi *et al*., 2011).

H2: What is the statistically significant difference between Nomophobia across sex among study participants? The study from a gender perspective, the results indicate that female university students demonstrated higher levels of nomophobia compared to their male counterparts. This finding is consistent with previous research, which consistently shows that females are more likely to exhibit nomophobia and are more profoundly affected by it than males (Gezgin & Cakir, 2016; Hwang, Yoo, & Cho, 2012; SecurEnvoy, 2012; Tavolacci *et al*., 2015; Yildirim *et al*., 2016). Additionally, some studies have found that both female and male students display elevated levels of nomophobia, aligning with numerous earlier studies (Gowda *et al*., 2019; Gutiérrez-Puertas *et al*., 2019; Mallya *et al*., 2018; Yildirim *et al*., 2016). However, there are inconsistent findings suggesting that males may experience higher levels of nomophobia than females (Yildiz *et al*., 2020; Takao *et al*., 2009). Research indicates that females tend to be more

dependent on internet services and are at a greater risk of developing smartphone addiction (Kalaskar, 2015). They are also less likely to participate in outdoor activities and events, preferring to connect with friends via social media (Slaih *et al*., 2019). Females often use their smartphones in public settings to alleviate feelings of loneliness, while males generally use their phones more for professional and technological purposes rather than socializing. Moreover, females experience heightened anxiety when they cannot stay updated on social media (Mallya *et al*., 2018). Studies have also shown that males experience lower levels of social stress and use smartphones less for social interactions (Van Deursen *et al*., 2015). Females typically use smartphones more for planning social gatherings and engaging in gossip, reflecting their social anxieties regarding public speaking, self-expression, group discussions, and communication with strangers (Jenaro *et al*., 2007). This supports the conclusion that females utilize smartphones primarily for social purposes, while males tend to use them for business and technological needs (Bianchi & Phillips, 2005). Additionally, a statistical survey indicated that a higher percentage of females (48%) prefer using mobile devices for leisure activities compared to males (36%) (Mobi Roller, 2014).

In contrast to the findings by Dixit *et al*. (2010), which reported no gender differences in nomophobia levels among students, certain factors may help explain the observed gender disparity. Karaaslan and Budak (2012) suggested that this difference could be linked to female students' greater inclination to use smartphones for communication compared to their male peers. RQ-3: What is the statistically significant difference between Academic achievements across sexes among study participants?

Previous research has consistently highlighted differences in academic achievement between males and females, often showing that female students tend to have an advantage (Voyer & Voyer, 2014). Numerous studies have focused on gender differences in academic performance, particularly in mathematics, spatial abilities, and verbal skills. For instance, Finn and Peterson (2021) and Wamdeo (2013) have documented notable disparities in these areas. Additionally, research by Armot, David, and Weiner (2016) and Stump (2015) supports the idea that females excel in verbal fluency measures, such as vocabulary, listening, speaking, comprehension, fluency, and spelling, while males generally perform better in mathematical and spatial skills.

In contrast to these findings, Armot, David, and Weiner (2016) argued that the United Kingdom and Scotland have achieved "gender parity" in education for a considerable time. Their study found that the proportion of boys and girls receiving top grades at age 18 (A level) is approximately equal, with girls performing at similar levels. Furthermore, a study by Davidson *et al*. (2014) indicated no significant gender effect on active learning strategies.

5 Conclusion

This study addressed the topic of the effect of nomophobia, academic distress, and introverted personality on academic achievement among university students. The study's findings revealed that the effects of nomophobia, academic distress, and introverted personality have a significant impact on academic achievement ($F(3, 406) = 7.52$, $p = .032$). Notably, nomophobia scores differed between males ($M = 3.81$, $SD = 2.23$, $N = 254$) and females ($M = 3.12$, $SD = 3.41$, $N = 157$), as did academic achievement scores (males: $M = 4.13$, $SD = 4.091$, $N = 253$; females: $M = 4.85$, $SD = 3.950$, $N = 157$). The results suggest nomophobia, academic distress, and introverted personality. Educators and legislators should consider the effects of nomophobia, academic distress, and introverted personality on the academic achievements of university students and should design programs to raise awareness of the possible effects of nomophobia, academic distress, and introverted personality. Further studies should explore how students manage these factors in academic contexts.

The Strengths and Limitations of the Study

This study represents a groundbreaking effort in Ethiopia, exploring the links between nomophobia, academic distress, and introverted personality traits, thus filling a significant gap in the current literature. Its emphasis on the challenges encountered by university students is crucial for educational stake-

holders, including policymakers and educators. By employing self-report measures, the research gathers meaningful qualitative data that reflects students' experiences, which can contribute to improving academic achievement. This foundational insight also lays the groundwork for future inquiries.

Nonetheless, there are certain limitations. The study's concentration on university students limits the applicability of its findings to other demographics, such as high school students or professionals. Furthermore, the dependence on self-report measures may introduce biases, as participants could provide responses that they perceive as socially acceptable. This raises questions about the validity of the findings and highlights the necessity for future research to examine nomophobia across various populations and contexts for a more thorough understanding of the issue.

Declaration of Interest's statement

The author (s) declare no potential conflict of interest

Ethical approval

Informed consent was obtained from participants before data collection. They were informed about the study's nature and purpose and were made aware of their right to withdraw from the study at any time. Participants were assured of the confidentiality of their data. No incentives were provided for participation in the study. The study was conducted in accordance with the procedures recommended by the Research Ethics Committee of Dilla University and comparable ethical standards.

Consent for publication: Not applicable

Availability of data

The datasets generated and analyzed during the current study were not publicly available but will be available from the corresponding author upon reasonable request.

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Author Contributions

AP, developed the study's Concept, conducted the literature review, data gatherings and analysis. MM, designed the methodology, selected questionnaires, data collection, performed statistical analyses, and authored the discussion while drafting and incorporating feedback, and provided critical input during revisions. AB, supported data analysis and interpretation and participated in the literature review. All authors read and approved the final manuscript.

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