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GENDER GAP REVERSAL IN LEARNING AND GENDER-RESPONSIVE TEACHING IN CAMBODIA

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This study is part of the EDT's multi-year research program, aimed at improving the overall understanding of the impact of Gender-Responsive Pedagogy and its potential to enhance learning outcomes for both boys and girls. The views expressed in this report solely represent those of the authors and do not necessarily reflect the opinions of CDRI or EDT.

Abbreviations

CDRI	Cambodia Development Resource Institute
CFS	Child-Friendly School
CPD	Continuous Professional Development
DOE	District Office of Education
DTMT	District Training and Monitoring Team
EDT	Education Development Trust
EFA	Education for All
ETL	Effective Teaching and Learning
FAWE	Forum for African Women Educationists
GRP	Gender-Responsive Pedagogy
INSET	In-service Teacher Education and Training
KAPE	Kampuchea Action to Promote Education
KII	Key Informant Interview
MoEYS	Ministry of Education, Youth and Sport
MoWA	Ministry of Women Affairs
NGOs	Non-Governmental Organisations
OECD	Organisation for Economic Co-operation and Development
PACE	Personal Advancement and Career Enhancement
PISA-D	Programme for International Student Assessment for Development
POE	Provincial Office of Education
PRESET	Pre-service Teacher Education and Training
PTTC	Provincial Teacher Training Centre
PVs	Plausible Values
RGC	Royal Government of Cambodia
RTTC	Regional Teacher Training Centre
SBM	School-Based Management
SDGs	Sustainable Development Goals
SEA-PLM	Southeast Asia Primary Learning Metrics
TEC	Teacher Education College
TIGER	Teaching for Improved Gender Equality and Responsiveness
TPAP	Teacher Policy Action Plan
TTD	Teacher Training Department
UIS	UNESCO Institute of Statistics
UNESCO	The United Nations Educational, Scientific and Cultural Organisation
UNICEF	United Nations International Children's Emergency Fund

Executive summary

In the past two decades, Cambodia has been committed to the global agenda of ensuring that all children from all walks of life have access to education and quality learning opportunities. The focus was not only on access to education but also on gender parity and learning quality. Three years after the adoption of the Dakar Framework for Action in 2003, Cambodia adopted the national plan for Education for All (EFA) as a guiding pathway to realise the government's commitments toward the education goals reiterated in the Dakar Framework. Cambodia has made subsequent development in education, notably making education more accessible and equal, particularly at the primary level. Girls greatly benefited from expanded access to education, and the gender parity index markedly increased as a result. In fact, by 2013, the parity index increased so dramatically that girls' enrolment started to surpass boys' enrolment for the first time. In recent years, Cambodian girls not only outnumber boys in terms of enrolment but also learning performance. However, little attention is paid to this gender issue. Additionally, it is especially concerning that the majority of Cambodian students in primary and secondary schools fail to acquire the expected basic knowledge and skills by the end of each cycle.

Amongst good practices in teaching and learning, gender-responsive pedagogy (GRP) is found to have a positive learning impact for both boys and girls. Yet, little is known about the government's commitment to GRP and its practice on the ground in Cambodia. This research aims to analyse the national policies related to gender and teacher professional development, investigate learning disparities, evaluate teaching practices using the GRP lens, and identify interventions to increase gender equity in Cambodia.

An analysis of policies reveals that Cambodia has prioritised human resource development and gender equality in its national development plan, particularly by implementing the Neary Rattanak Strategic Plan led by the Ministry of Women Affairs (MoWA). The Ministry of Education, Youth and Sport (MoEYS) has also taken steps to promote gender equality and inclusivity in education through the Gender Mainstreaming Strategic Plan. Girls are given priority in scholarships in order to increase girls' enrolment, and both the Child-Friendly School Policy and the Policy on Inclusive Education aim to ensure inclusive and gender-responsive schooling. The government's continued focus on girls as a disadvantaged group is evident in these policies. Furthermore, government efforts, like the "One Commune, One Lower Secondary School" initiative that aims to establish at least one lower secondary school in each commune, have also made headway in combating gender inequity. Together, these policies clearly demonstrate the government's dedication to addressing gender disparities, facilitating equal access to quality education in Cambodia.

Data from SEA-PLM reveals that girls consistently outperform boys in primary school, particularly in writing proficiency. In the PISA-D assessment, girls scored higher than boys in reading and science, although the gender difference does not extend to mathematics. Cultural expectations, differences in behaviour and dedication to learning, use of digital devices, and socioeconomic factors are believed to be factors contributing to the observed gender gap reversal, where boys underperform compared to girls. Furthermore, boys are often expected to provide financial support for their families; thus, their family's socioeconomic status can play a role in their educational achievement.

Efforts are being made to integrate GRP into teaching practices to ensure favourable learning experience and achievement for both boys and girls. Although endeavours are made to ensure equal opportunities and participation for both genders, variations exist among teachers regarding classroom and seating arrangements and gender-based violence, among other practices.

Several interventions have been implemented to promote gender equity and the use of GRP in Cambodia. The TIGER project focused on enhancing teachers' knowledge and skills through training and integrating GRP practices in schools resulting in the transformation of educational institutions. Other interventions include the Life Skills Learning for Adolescent Girls (LSLAG) project, which aimed to empower girls with life skills for their transition to adulthood, and the Life Skills for Gender Equality project, which expanded the prior project's focus to boys to support their academic success and challenge harmful gender norms. These interventions involve life skills lessons and parent/community engagement focusing on promoting gender equity and creating gender-responsive learning environments in schools.

Finally, this study offers several policy implications to promote inclusive and quality education in Cambodia. Efforts should be made to address the emerging gender gap reversal by designing policies and interventions that specifically target the challenges faced by boys that hinder their learning, including excessive engagement with technology, prioritising social activities over their studies, and ameliorating the impact of family socioeconomic factors. Ensuring equal opportunities and support for both boys and girls should be a central goal. Future gender policies need to reflect the need for increased support for boys accurately. Additionally, teacher professional development programs need to be strengthened with a particular emphasis on GRP. Comprehensive and systematic training should be provided to teachers, including gender-sensitive teaching practices, effective classroom management, and creating inclusive learning environments. Ongoing support and monitoring should be prioritised to ensure the successful implementation of these training programs. Furthermore, the implementation of GRP can be enhanced by including it in the pre-service training programs. Doing so would encourage teachers to incorporate GRP concepts into their teaching practices, establish consistent guidelines, and promote effective implementation across schools and teachers.

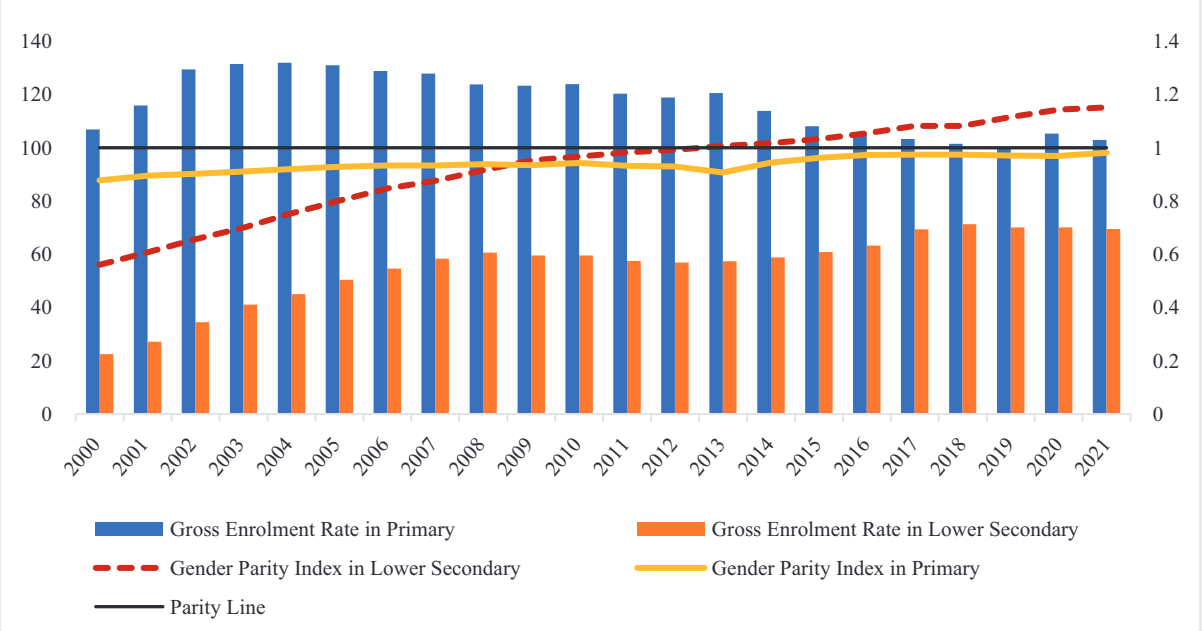
1. Introduction

1.1. Background

In the past two decades, countries worldwide, including Cambodia, have been committed to the global agenda of ensuring that all children from all walks of life have access to education and quality learning opportunities. Multilateral development agencies, bilateral aid agencies, and representatives from 155 countries came to Jomtien, Thailand, in 1990 to establish an agreement on the World Declaration on Education for All (EFA). EFA set out to realise universal primary education and to ensure the learning quality of children, youth, and adults (UNESCO 1990). Ten years later, countries reaffirmed their commitments to education during the World Forum on Education and successfully produced the Dakar Framework for Action of Education for All: Meeting Our Collective Commitments. The framework set six goals to be achieved by 2015, including gender equality in education (UNESCO 2000). Not only did the new framework focus on access to education but also on gender parity and learning quality. However, at the end of the mandate in 2015, it was clear that although children had better opportunities to access education, learning in many developing countries was in crisis, and governments needed to make extra commitments toward advancing gender equality. These issues are well reflected in the latest global agenda, the Sustainable Development Goals (SDGs). SDG 4 aims to ensure quality primary and secondary education and eliminate gender inequality.

Three years after adopting the Dakar Framework for Action in 2003, Cambodia adopted a national plan for Education for All as a guiding pathway to realise the government's commitments toward the education goals outlined in the Dakar Framework. Around the same time, the five-year gender mainstreaming strategy 2002-2006 was initially developed. The strategy aimed not only to promote girls' access to education but also to strengthen women's technical capacity in education programming and policymaking (Royal Government of Cambodia [RGC] 2003). As a result, Cambodia has made progressive development in education over the past three decades making education more accessible and equal, particularly at the primary education level.

Figure 1: Gross enrolment rate and gender parity index in primary and lower secondary education

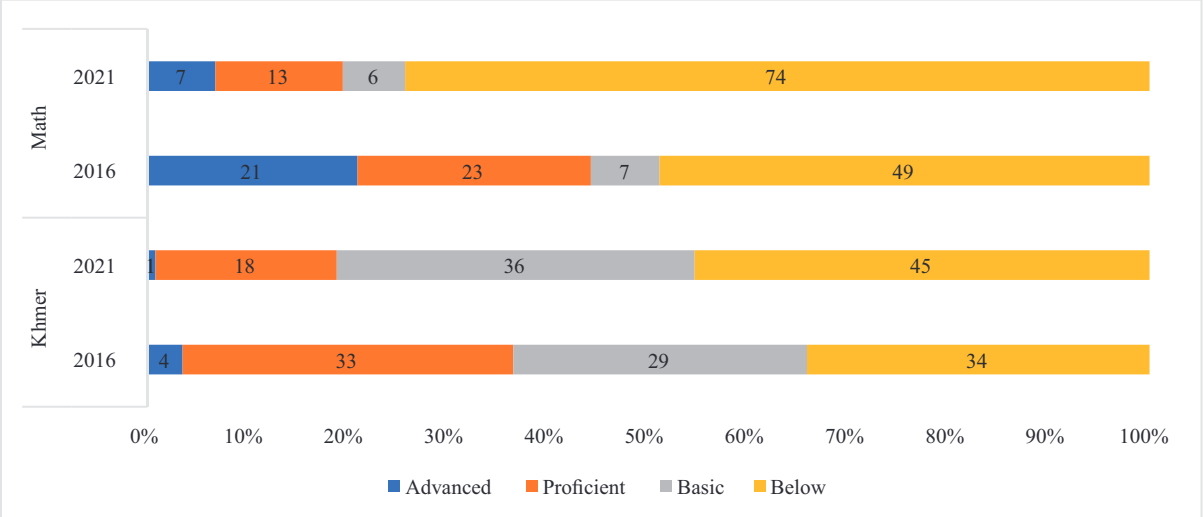


Source: UIS (http://data.uis.unesco.org/) accessed on 20 October 2022

As seen in Figure 1, the gross enrolment rate in primary schools peaked at 132% in 2004, suggesting a large share of over-aged students and repeaters in primary schools. Based on the UNESCO Institute of Statistics (UIS) data, the gross and net enrolment rates in primary education have converged to 100%, meaning nearly all school-age children are now in school (UIS 2022). The gender parity index in primary education enrolment is also remarkably close to the parity line. Lower secondary education enrollment had also expanded rapidly, especially between 2000 and 2008, when the gross enrolment rate in lower secondary schools ballooned from 22.6% in 2000 to 60.6% in 2008. Girls greatly benefited from this education expansion as the gender parity index markedly increased from 0.56 to 0.91. The parity index continued to increase, and by 2013, girls' enrolment started to surpass boys' enrolment for the first time. Yet, enrolment in lower secondary schools is far from universal, and nearly 20% of school-age children are still out of school.

What is more concerning is that a majority of Cambodian students in primary and secondary schools fail to acquire the expected basic knowledge and skills even by the end of each education cycle. According to the UIS (2022) country profile trend, at the end of primary school, only 9.9% and 7.5% of Cambodian students had reached the minimum proficiency level in mathematics and reading, respectively. The results for lower secondary school students are better, with 18.0% of students reaching minimum proficiency in mathematics and 11.0% of students reaching minimum proficiency in reading. However, these rates are still insufficient. Further compounding this issue, the 2016 and 2021 Grade 6 national learning assessments conducted by MoEYS found that Cambodian students' learning losses during the pandemic are substantial (Marshall 2022). In fact, the learning performances of Grade 6 students in 2021 were 0.30 and 0.75 standard deviations lower than pre-pandemic levels for Khmer and Math, respectively. Students performing below basic in Math increased from 49.2% in 2016 to 74.2% in 2021 (see Figure 2).

Figure 2: Learning proficiency level in Grade 6 in Khmer and Math



Source: Marshall (2022)

In recent years, Cambodian girls not only outnumber boys in terms of enrolment but also learning performance. However, little attention has been paid to this reversal of gender issues. The lack of teacher skills and motivation, along with learner preparation, school inputs, and school management, have been found to be the main causes of the learning crisis worldwide (World Bank 2018). Within the variety of best practices in teaching and learning, gender-

responsive pedagogy (GRP) is found to have a positive impact on learning for both boys and girls. Yet, little is known about the government's commitment to gender-responsive pedagogy and its practice on the ground in Cambodia. This study aims to address this knowledge gap.

1.2. What is gender-responsive pedagogy?

Based on the Forum for African Women Educationists (FAWE), gender-responsive pedagogy is defined as "teaching and learning processes that pay attention to the specific learning needs of girls and boys" (Dowd et al. 2018, 31). FAWE's framework incorporates a wide range of teaching and learning processes that include lesson planning, the content of teaching and learning materials, language use in classrooms, classroom set-ups, and gender-based violence. This study adopts FAWE's 2018 framework to assess how responsive is the pedagogy in Cambodian basic education to gender.

1.3. Research objectives

This paper is guided by four research objectives, as follows:

- To comprehensively analyse national policies concerning gender equity, GRP, and teacher professional development in Cambodia.
- To investigate and analyse the learning disparities between female and male students and identify the factors contributing to the gender gap and describe their implications.
- To evaluate teaching practices in Cambodia from the perspective of GRP.
- To identify and examine the interventions and programs implemented in Cambodia related to GRP.

2. Research methodology

This study adopts a mixed-method approach by combining quantitative and qualitative methods to address the above objectives. It is important to note that according to Creswell and Clark's (2018) definitions, this mixed methods approach does not fall into either explanatory, exploratory, or convergent design. The design of these two strands of approaches utilised in this study attempts to answer different sets of research questions, which are described below.

2.1. Quantitative strand

The quantitative strand of this study examines the learning gaps between girls and boys in primary and lower secondary schools by subject. It also investigates if the learning gaps are heterogenous by conducting sub-group analysis (i.e., rural-urban, income quintile, age group, and school type) by employing statistical tests to examine the gender difference using two datasets: the Southeast Asia Primary Learning Metrics (SEA-PLM) for primary education and the Programme for International Student Assessment for Development (PISA-D) for lower secondary education. SEA-PLM was conducted in 2019 in six countries, including Cambodia, Lao PDR, Malaysia, Myanmar, the Philippines, and Vietnam. For SEA-PLM's implementation in Cambodia, a two stage-sampling method was employed to select 5,396 Grade 5 students from 177 primary schools. PISA-D was implemented by OECD and is the first international standardised test in which Cambodia participated in 2016. Within Cambodia, 5,162 15-year-old students in Grade 7 and above across 170 schools were recruited from eligible secondary schools to participate in PISA-D. Both SEA-PLM and PISA-D use item response theory to estimate student performances using plausible values (PVs).

2.2. Qualitative strand

The qualitative strand has three central aims. First, it intends to review national policies that promote gender equity and GRP as well as teacher professional development in Cambodian primary and secondary education. Second, it examines how the teaching practice on the ground are responsive to gender. Third, it identified GRP programs that have been introduced in Cambodia, either by government agencies or development partners. The sources of the qualitative data reviewed and analysed in this study come from key informant interviews with relevant stakeholders from national, sub-national, and school levels; policy documents and guidelines related to GPR primarily, but also gender issues more broadly; and, finally, relevant academic literature and research reports.

Key informant interviews

Key informant interviews (KIIs) generated the main source of primary data in this study. The data was collected from respondents grouped into the categories of policymakers and practitioners at the national level; international and local non-governmental organisations (NGOs) focusing on gender in education; stakeholders at the sub-national level, provincial office of education, district office of education, and teacher education college; and school principals and teachers. A combination of two purposeful sampling strategies—an initial reputational sampling that was then followed by a snowball sampling technique—was used to recruit participants for the KIIs. Reputational sampling selects people or institutions that the research team believe possess a good knowledge of issues related to the study. Snowball sampling was then used to identify more participants who could provide new information and substantiate the data collected.

A semi-structured interview protocol was drafted by the Cambodia Development Resource Institute (CDRI) research team based on the objectives of the study. The interview instrument was then revised based on the Education Development Trust (EDT) feedback. In principle, we requested face-to-face interviews but allowed the option for online interviews if the participants preferred. After the successful rollout of vaccinations in late 2021, there have been no travel restrictions in Cambodia that would have hindered data collection. In total, 17 KIIs were conducted between 22 August and 30 September 2022 (see Appendix 1 for the list of interviews). There was a relatively even number of male and female respondents among NGO representatives as well as school principals and teachers. However, respondents from the MoEYS departments were nearly all men. The inception report outlining the study's background, objectives, and approach was sent to participants before each interview.

As the study broadly investigated many aspects, from policy formulation to practice and from teaching practice to teacher training, we did not restrict the number of participants for each interview. Each institution could assign several people to participate in the study if they thought it would provide more complete answers to all interview questions. Most NGOs only assigned one person to take part in the study. By contrast, departments at MoEYS, educational offices at provincial and district levels, and schools sent more than one person to participate in the KIIs. All interviews were conducted by the research team and audio-recorded with consent from the participants. Abridged transcriptions were also completed by the research team with special attention to the most relevant sections of each interview. The direct involvement in data collection and transcription helped researchers to familiarise themselves with the data and was helpful for data coding in the analysis phase.

Policy documents and guidelines

In addition to the policy documents retrieved from various sources online, the research team also obtained policy documents from key informants at the national and sub-national levels during and after interviews.

Qualitative data analysis

In addition to the primary data collected through KIIs, policy documents identified during the literature review were used for the data analysis. Both sets of data were imported into NVivo12 for data coding as well as theme and sub-theme generation. Deductive coding—a top-down approach with a set of predetermined themes and sub-themes codes—was utilised to identify relevant excerpts from the transcribed interviews and policy documents. Relevant academic literature and reports were then used to supplement and triangulate the findings.

3. Results

3.1. National policies related to gender

This section analyses national and sectoral policies pertaining to gender. The current phase of the Royal Government of Cambodia's (RGC) Rectangular Strategy (Phase 4) identifies human resource development as its top priority among the four areas, and how gender impacts this development has been thoughtfully considered (RGC 2018). For example, the RGC expressed its strong commitment to strengthening gender equality by assigning the Ministry of Women Affairs (MoWA) to implement its Neary Rattanak Strategic Plan, a policy aiming to mainstream gender as the core and cross-cutting strategy across six areas, including economics, education, health, legal protection, leadership and politics, and climate change (MoWA 2020).

Education strategies and priorities are guided by the MoEYS's Education Strategic Plan. The current plan covering 2018 to 2023 focuses on two policy priorities. The first aims to ensure inclusive and equitable education and promote lifelong learning opportunities for all. The second priority is to ensure effective leadership and management of education staff at all levels (MoEYS 2019b, 1). Various activities have been implemented across all education levels to achieve these policy priorities. For instance, in primary education, many efforts have been made to improve students' participation and completion rates, especially those from disadvantaged groups. Additionally, MoEYS has been working to make quality teaching and learning resources available to all areas of the country and to raise primary school standards by implementing school-based management (SBM). At the secondary level, MoEYS has been working to improve student access to secondary education, increasing student retention, and equipping students with 21st-century skills while improving secondary school leadership and management. Regarding efforts taken to tackle gender equity issues in education, several key policies and programs have been put in place by MoEYS, including the Gender Mainstreaming Strategic Plan, the Scholarship Program for Poor Students, the Child-Friendly School Policy, the Inclusive Education Policy, and the One Commune, One Lower Secondary School Initiative. Each of these policies and programs is discussed in more detail below.

3.1.1. Gender Mainstreaming Strategic Plan in the Education Sector

Guided by the direction set in the Neary Rattanak Strategic Plan, MoEYS has developed its own strategic plan to mainstream gender in all areas of education. The Gender Mainstreaming Strategic Plan in the Education Sector was first developed in 2011 and has been updated several times. In the latest version of the strategic plan, MoEYS attempts to ensure that children and adults of all genders can access educational services equitably and inclusively so that they can attain desired learning outcomes (MoEYS 2021b). To achieve this, MoEYS has set three specific goals: i). to promote gender equality, equitable and inclusive access to education and quality learning outcomes, ii). to increase women's participation in educational services, and iii). to establish a gender-sensitive school environment and norms around appropriate social behaviour. MoEYS delineated several strategies to accomplish these three goals. One strategy is conducting numerous gender-related research surrounding these issues and then disseminating the study findings and raising public awareness of the studied issues. Having various forums and campaigns to encourage more women's representation in leadership positions and increase cooperation and participation from relevant stakeholders are also ways to mainstream gender in the education sector. MoEYS has also prioritised capacity building among its staff around gender issues, worked to mainstream those gender issues in the teaching and learning process, promoted gender-responsive activities and monitoring system, and striven to strengthen partnerships among all educational stakeholders.

3.1.2. Scholarship Programs for Poor Students

One of the government's strategies to increase girls' enrolment is prioritising girls in scholarship programs. This initiative began in 2003 as part of the government's efforts to improve equitable access to education, student retention, and secondary school completion. However, the scholarship was limited to lower secondary school students at that time. The scholarship was expanded in 2014 to both primary and upper-secondary levels. There has since been a steady increase in scholarship students across all general education levels. The annual Education Congress reported that approximately 148,901 primary school students (53.9% were females) and 102,164 lower secondary school students (59.4% were females) received the scholarship in the 2021-2022 academic year (Voun 2022).

It should be noted that the key criteria for selecting scholarship awardees include students' socioeconomic status and gender, wherein girls are given priority. The scholarship is distributed to students as cash payments of USD60 in three instalments per year. Despite girls' enrolment being higher than boys' at the time of this study, the scholarship program continues to prioritise girls. This inconsistency was confirmed by both MoEYS (2022) statistics and our interviews with relevant stakeholders (KII04, KII06 and KII10).

3.1.3. Child-Friendly School Policy

With strong support from development partners, particularly UNICEF, the Child-Friendly School (CFS) Policy has significantly promoted gender equity in education. In this policy, MoEYS (2007) aims to ensure that all children, particularly the most vulnerable, have access to schooling. CFS schools should be inclusive and able to nurture the well-being of every child. The CFS policy has six key dimensions: i). all children have access to schooling; ii). effective learning; iii). health, safety, and protection of children; iv). gender responsiveness; v). the participation of children, families, and communities in running their local school; and vi). schools are becoming more child-friendly with the support and encouragement of the national education system. As seen in Table 1, CFF dimension 4, in addition to creating

a girl counsellor position for each school, gender must be mainstreamed in the other five dimensions.

Table 1: CFS dimensions and core activities

Dimension	Core Activities
Dimension 1	• School mapping (household mapping) • Data collection on children • Enrolment campaign and mobilise out-of-school children to enrol
Dimension 2	• Child-centred approach (SRP and ETL) • Attractive classroom environment (appropriate for primary/lower secondary) • Local life skills program for Thursday • Support to slow learners (during the academic year) • School libraries
Dimension 3	• Safe food, safe water, and hygiene conditions in school • Control food selling in school and health care for children • School environment • Child protection
Dimension 4	• Gender activities are mainstreamed in all dimensions • Girl counsellor and gender focal point
Dimension 5	• Collection of children's work for student portfolio and exhibition for community • Social activities/mobilisation for the interest of the community • Student Council • Strategies by which school helps families and communities
Dimension 6	• Preparing guidelines and documents for CFS development • Organise partnerships between schools • School assessment • School director training on leadership • School development plan

Source: MoEYS (2007)

It should be stressed that this is the only MoEYS policy document that explicitly emphasises the term "gender-responsiveness" in education. However, it does not define GRP nor discuss what gender-responsive teaching should be. What it has proposed is called the "child-centred approach". According to Schweisfurth (2013, 20), child-centred pedagogy is:

> an approach which gives learners, and demands from them, a relatively high level of active control over the content and process of learning. What is learnt, and how, are therefore shaped by learners' needs, capacities, and interests.

The policy states that teaching and learning should be participatory, cooperative, and, most importantly, based on creative notions. Critical thinking and problem-solving are primary skills for students to develop. With these skills, students should be able to embrace the four qualities, including empathy, compassion, joy, and equanimity, needed to become responsible citizens in the future.

3.1.4. Policy on Inclusive Education

MoEYS has also developed a specific policy document called the Policy on Inclusive Education in order to promote inclusiveness in the education sector. This policy aims to educate all people with special needs to have the knowledge, skills, and attitude to contribute to the development of society (MoEYS 2018b, 4). Certain strategies are prescribed in the policy to achieve its goals. For instance, a legal framework and mechanisms to promote inclusive education are to

be developed, and there is a need for inter-ministerial collaboration to identify the people who qualify as having special needs in order to do so.

From the government's point of view, girls are still considered a disadvantaged group even though it has been confirmed that girls have outperformed boys in primary and lower secondary education (Hamilton and Jhaj 2020; MoEYS 2018a). The reason the government continues to pay attention to girls could be partially explained by the interview with KII04, who said that girls' satisfactory learning outcomes would fade if the government stopped providing support. It has taken a long time and great effort to help girls and women achieve their current levels. From our interviews, the government does not have plans in the near future to adopt policies that prioritise boys who are lagging behind. Their focus remains on expanding access—without specifically targeting boys or girls—and improving student learning outcomes.

3.1.5. "One Commune, One Lower Secondary School" ambition

In addition to the government commitments to gender equity documented in national policies, sometimes gains can result from more informal measures. According to our informants, the main reason girls' enrolment increased rapidly is due to the "one commune, one lower secondary school" ambition. Building more schools and toilets has greatly improved girls' enrolment rates. Schools are now closer to students, which has improved transition rates and reduced dropout rates. However, after an extensive review of policies and literature, we could not find this initiative mentioned in any formal documents. The ambition appears to have originated in a 2008 inauguration ceremony speech by the Prime Minister for a lower secondary school in Kampong Thom province. In his speech, Hun Sen mentioned that Cambodia should have one lower secondary school in each commune so disadvantaged students, particularly poor and female students, can easily access schooling. Following this unwritten policy, Cambodia has put significant effort into realising this "one commune, one lower secondary school" ambition. As of 2021, the number of lower secondary schools (1,777) has exceeded the number of communes (1,409) in Cambodia, indicating the great strides the government has taken to bring schools closer to students. With this achievement, the Prime Minister has set a new ambition for Cambodia to have "at least one secondary school in every commune" (Voun 2022).

3.2. Teacher policy and professional development

MoEYS recognises that a highly qualified and motivated teacher workforce is a crucial factor in improving the quality of teaching and learning. To operationalise these priorities, MoEYS has put in place numerous policies to increase the quantity and quality of teachers in Cambodia. The key policies include Teacher Policy, Teacher Policy Action Plan (TPAP), Framework for Teacher Continuous Professional Development (CPD), Teacher Career Pathway Framework, and Teacher Professional Standards. Each of these policies and frameworks is described in more detail below.

3.2.1. Teacher Professional Standards

It should be noted that parts of the criteria in the Teacher Career Pathway Framework are based on the Teacher Professional Standards developed by MoEYS in 2010 as a mechanism to improve the quality of teaching. The standards consist of four components: professional knowledge, professional practices, professional study, and professional ethics (MoEYS 2010b). To be a good teacher, one must i). have good knowledge of students' characteristics

and learning behaviours, ii). be able to plan and monitor students' academic outcomes and manage the classroom environment, and iii). use a variety of teaching methodologies based on students' needs. Teachers must also be willing to improve their teaching and actively engage in teaching quality improvement activities, such as CPD training workshops. Professional ethics must also be attained, such as caring for students, being committed and responsible to the teaching profession, being a positive model of ethical behaviour, and using fairness and transparency in dealing with students regardless of gender, ethnicity, disability, or poverty.

3.2.2. Teacher policy and action plan

The Teacher Policy was introduced in 2013 to attract more capable individuals to become teachers, enhance pre-service and in-service training quality, and provide a supportive environment for teachers to develop their professional practices. Six of the nine strategies set in the teacher policy aim to improve teacher training and professional development (MoEYS 2013). These strategies include i). defining standards for the teacher training system, ii). developing teacher training centres, iii). rationalising teachers to meet educational institutions' needs, iv). providing in-service training and professional development for teachers, v). motivating and retaining teachers, and vi). strengthening teacher monitoring and evaluation mechanisms.

Based on the Teacher Policy, MoEYS (2015) issued a separate document called the Teacher Policy Action Plan (TPAP) to execute the policy. The Action Plan details MoEYS's strategies, programs, and activities to be implemented in a precise timeframe alongside estimated budgets for each activity or program. As shown in Table 2, the Teacher Training Colleges (TTCs), Teacher Training Department (TTD), and Department of Planning (DoP) are tasked with implementing sub-strategy 6.1.1 on INSET development and implementation. The INSET needs assessment and creation of INSET delivery options were to be completed by mid-2015 with an approximate budget of $30,000. However, there is no official document publicly available that explains the progress of the targets set in the Action Plan.

Table 2: Example of TPAP matrix

Programs/Main activities	Tasks/activities	Indicators	Deadline	Responsible Institutions	Budget (USD)
Strategy 6: Provision of in-service training and professional development for teachers					
Sub-strategy 6.1: Cultivate a culture of life-long learning and the sharing of (professional) knowledge and experiences with educational network groups					
6.1.1 INSET Development and Implementation	6.1.1.1 Strengthen the knowledge of teachers teaching grades 9 and 12 on the prioritised subjects (Math, Khmer, History, Science)	Number of prioritised subject teachers trained	2015 Q4	TTD, TTCs	$1,800,000
	6.1.1.2 Conduct a comprehensive "INSET Needs Assessment" and develop INSET delivery options	Study completed	2015 Q2	TTCs, TTD, DoP	$ 30,000
	6.1.1.3 Create a comprehensive regular INSET system (based on working seniority)	INSET Standards Framework established	2016 Q4	TTD, HEIs, TTCs	$ 4,000

Source: MoEYS (2015)

3.2.3. Framework for Teacher Continuous Professional Development (CPD)

In an additional effort, MoEYS designed a professional development framework for teachers to improve their professional knowledge, skills, competence, and effectiveness. This national framework (2019a) outlines teachers' CPD mechanisms, delivery modalities, INSET roles and responsibilities, and monitoring and evaluation processes. It ensures that all educators can access CPD opportunities and encourages them to upgrade their qualifications regularly. Additionally, teachers' professional development is linked to their career pathways as an incentive reward mechanism for teachers to seek self-development opportunities. In the short term, an orientation should be organised for teachers to explain the career pathways and CPD approach so that they are fully aware of their professional development needs and opportunities. Further research should be conducted nationwide to assess teachers' CPD needs. School-based CPD committees should also be established to support teachers' CPD. In the longer term, the framework suggests a yearly review of the CPD system and an effective system to manage the CPD attendees so that the credit is directly linked to their career development.

3.2.4. Teacher Career Pathway Framework

The Teacher Career Pathway is a policy document relating to teachers' professional development, appraisal, and incentives. This policy sets a framework to "develop outstanding teachers with the necessary excellence, potential and merit to produce the next generation of Cambodian human capital" (MoEYS 2021c, 3). The pathway places teachers into three categories: senior teacher, lead teacher, and master teacher (see Table 3).

Table 3: Teacher professional categories in the teacher career pathway framework

Rank	Description
Senior Teacher	use teaching and learning methods in accordance with the profiles, backgrounds, needs and developmental levels of students, to improve their academic performance at a minimum level. Senior teachers are highly responsible and set an example to other teachers in their school
Lead Teacher	lead, collaborate and support colleagues to improve their students' academic performance at an above-expected level
Master Teacher	develop creative and innovative approaches to improving their students' academic performance at a significant level. Master teachers initiate new ideas and lead activities both in and out of school, including ensuring that all students have equitable access to education services.

Source: MoEYS (2021c)

The Teacher Career Pathway Appraisal Committee evaluates teachers based on applicants' qualifications, working experience, achievement, student learning outcomes, and demonstrated professional competencies. For instance, teachers must hold a bachelor's degree and have five years of teaching experience to be promoted to senior teachers. They must develop and disseminate at least one lesson for online classes and can have, at most, a 2.0% or 9.0% student dropout rate for primary and secondary levels, respectively. In addition, they must be able to describe types of students and their learning needs, abilities, academic backgrounds, and attitudes; teach theoretical concepts; prepare specific and accurate lesson plans; and demonstrate their commitment to the profession (MoEYS 2021c). Additional teacher attributes and skills may also be taken into consideration.

3.2.5. Teacher professional development

Cambodian teacher professional development is divided into two distinctive stages: PRESET and INSET. Providing teachers' pre-service training is the primary mandate of MoEYS's Department of Teacher Training (TTD). Depending on which level of education the prospective teachers will teach, they receive mandatory training programs from various institutions (MoEYS 2010a; Tandon and Fukao 2015). As seen in Table 4, prospective primary school teachers must undergo a two-year training program at a Provincial Teacher Training Centre (PTTC), while lower secondary teachers must attend a two-year program at a Regional Teacher Training Centre (RTTC). In recent years, PTTCs and RTTCs in the municipality of Phnom Penh and Battambang province were merged and upgraded to Teacher Training Colleges (TEC). As TECs, they can offer up to four-year programs and provide more flexible pathways for teachers who wish to pursue graduate studies.

Table 4: PRESET providers

Provider	Education Level	Duration
Pre-School Teacher Training Centre (PSTTC)	Pre-school	2 years (after high school)
Provincial Teacher Training Centre (PTTC)	Primary	2 years (after high school)
Regional Teacher Training Centre (RTTC)	Lower Secondary	2 years (after high school)
Teacher Training College (TEC)	Primary and lower secondary	2 years or 4 years (after high school)
National Institute of Education (NIE)	Upper secondary	1 year (after 4 years of bachelor's degree)

Source: MoEYS (2010b)

The PRESET curriculum covers content knowledge and pedagogical training. Primary school teacher trainees must complete over 1,600 training hours in the two-year PRESET program. During that time, their training covers seven key domains: professional skills, basic knowledge, teaching methodology, standardised Khmer language usage, combined subjects, teaching practicum, and pedagogical research (MoEYS 2017). Each domain is composed of several subjects. For instance, the professional skills training includes psychology-pedagogy, admin-library, general knowledge, and professional ethics, and each subject has a different amount of training hours (see Table 5). However, most of the training time is dedicated to the combined subjects (495 hours), such as inclusive education, life skills, sports education, languages, ICT and other soft skills, and teaching methodology (480 hours). Gender has also been incorporated into the training program alongside CFS, inclusive education, grouping class, children's rights, human rights, and women's rights. There is no subject beyond this dedicated explicitly to gender or GRP.

Table 5: Primary school teacher PRESET's time allocation for each subject

Domain	Subject details	Total hours	Credit
1	**Professional skills**	**225**	**14**
	Psychology-Pedagogy	135	8
	Admin-Library	45	3
	General knowledge and professional ethics	45	3

Domain	Subject details	Total hours	Credit
2	**Teaching methodology**	**480**	**19**
	Khmer	90	4
	Mathematics	90	4
	Science	45	2
	Foreign language	45	2
	Social studies	210	7
3	**Basic knowledge upgrading**	**360**	**19**
	Khmer	90	5
	Mathematics	90	5
	Science	45	2
	Social studies	45	2
	Foreign language	45	3
	ICT	45	2
4	**National language and public speaking**	**45**	**2**
5	**Common subjects**	**495**	**8**
	CFS, inclusive education, grouping class, children's rights, human rights, women's rights, and gender knowledge	90	4
	Environment, workshop, agriculture	90	4
	Sport education	30	-
	Foreign language	135	-
	ICT	135	-
	Career counselling and information on skill development	15	-
6	**Practicum**	**-**	**12**
7	**Pedagogical research**	**-**	**6**
	Total	**1605**	**80**

Source: MoEYS (2017)

INSET is for practising teachers to continue to develop professionally and can be categorised into three types. The first type is on-the-job training, usually conducted in each school through a technical meeting or class demonstration. Second, there are seminar-style INSETs that are organised by the Provincial Office of Education (POE), and they aim to improve teacher competency. The third is a workshop-type INSET that MoEYS arranges to enhance teacher capacity, particularly for new and vital subjects or concepts. Unfortunately, INSET training does not reach all teachers in the country. Participant KII03 elaborated when asked whether all teachers received specific training:

> Due to the limited budget, we only invite the school principals and deputy principals to participate in the training. The information and knowledge will be later shared in technical team meetings.

The current INSET system is unsystematic since there is no requirement for teachers to upgrade their skills or knowledge on a regular basis. Most INSET programs are donor-driven and ad-hoc. As one teacher lamented:

> I did not join any INSET courses. Mostly I try to learn by myself. Sometimes I learnt based on experiences I previously encountered in the real world. For instance, how to deal with diverse types of students. At my school, teachers rarely have any chances to participate in training courses, especially on gender-related topics.

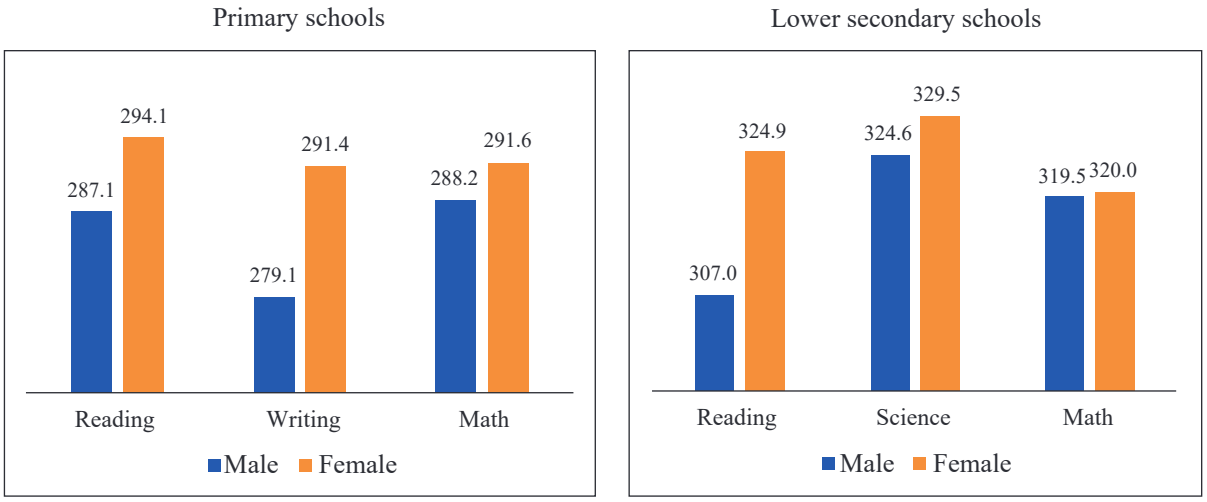
While there is no specific gender training offered by MoEYS directly to teachers or directors, KII03 insists that gender issues been incorporated well into capacity development programs for decades. A female teacher who graduated from a training program nearly 20 years ago stated that gender concepts were taught at that time as part of her PRESET program. Teachers at a school participating in the VVOB's TIGER program also reported that they were trained on GRP between 2017 and 2020. Yet, it is worth nothing that only 40 schools in Battambang province were involved in the TIGER project (see Section 3.6.1. for details).

3.3. Gender disparity in learning

3.3.1. Learning disparities between girls and boys

Based on the SEA-PLM learning assessment, at the primary school level, girls consistently perform better than boys in all three subjects, reading, writing, and mathematics. The gap in writing proficiency (12.2 points) is the most noticeable though there are smaller differences in reading (6.9 points) and mathematics (3.5 points). The results from PISA-D data suggest that, on average, girls score 17.9 points higher in reading and 4.9 points higher in science when compared to their male peers. It is worth noting that the difference in mathematics scores between boys and girls in PISA-D is not statistically different.

Figure 3: Learning performance by gender in primary and lower secondary education



Source: Prepared by the authors based on PISA-D and SEA-PLM

3.3.2. Gender disparities in learning by geographic areas

When students are grouped by geographic location, Grade 5 students in large cities tend to perform better than their peers in towns or villages. Despite this geographic discrepancy, girls continue to outperform boys in all three subjects in all geographic areas. The gender learning gap is even more pronounced in girls' favour in both reading and writing in large cities. Interestingly, the learning gap in reading in large cities is about twice as high as the gap found in other geographic locations, and the largest gap between girls' and boys' writing performance is also found in large cities. Based on the SEA-PLM data set, girls also demonstrate better learning outcomes in math, but this gap is weaker in terms of statistical significance and magnitude.

Results from PISA-D show similar regional disparities in learning in lower secondary schools that align with the trends in the SEA-PLM data. Students in large cities are likely to get higher reading, science, and mathematics scores than those in towns and villages. Girls also exhibit better learning outcomes, though with less consistency compared to girls tested at the primary school level. Girls are clearly doing better in reading and, to a smaller extent, in science. Unlike the Grade 5 regional assessment results, the gender gap in reading is most pronounced in villages, not large cities. In science, girls in all geographic areas, except cities, perform better than boys. However, it is statically significant in the village and town sub-sample. In mathematics, boys in cities perform better than girls, which is reversed in towns and villages.

Table 6: Learning performance by gender and school location

Primary School (SEA-PLM)									
	Reading			**Writing**			**Mathematics**		
	Male	Female	Gap	Male	Female	Gap	Male	Female	Gap
Village	281.4	288.3	-6.9***	273.3	286.1	-12.8***	282.6	286.7	-4.2***
Small town	287.1	293.2	-6.1***	280.2	291.7	-11.4***	287.8	289.2	-1.5*
Town	294.7	302.4	-7.8***	284.2	297.5	-13.2***	294.4	298.5	-4.0***
City	305.2	312.4	-7.1***	301.2	307.2	-6.0**	310.9	317.1	-6.3***
Large City	316.2	327.3	-11.1***	302.3	319.2	-16.9***	320.9	325.9	-5.0**
Lower Secondary School (PISA-D)									
	Reading			**Science**			**Mathematics**		
	Male	Female	Gap	Male	Female	Gap	Male	Female	Gap
Village	287.2	306.5	-19.3***	310.5	316.4	-5.9***	294.0	296.5	-2.5
Small town	305.8	324.2	-18.4***	326.8	331.4	-4.6	320.1	318.0	2.1
Town	319.0	336.0	-17.0***	330.3	335.3	-5.0*	334.7	335.3	-0.6
City	347.3	351.3	-4.0**	356.3	350.2	6.1	372.8	357.2	15.6***
Large city	357.8	369.0	-11.2**	357.5	359.9	-2.4	376.7	370.7	6.0

Sources: Prepared by the authors based on SEA-PLM and PISA-D

3.3.3. Gender disparities in learning by socioeconomic status

Table 7 presents learning performances by socioeconomic status. Students are divided into four quintiles based on their wealth index, where Q1 represents the poorest, and Q4 represents the richest. Unsurprisingly, students from affluent families do better than their peers from socioeconomically disadvantaged families in all subjects, both at the primary and secondary levels. However, the results from SEA-PLM data indicate that the gender gap in the Grade 5 learning assessment is roughly the same across socioeconomic status. Contrary to the SEA-PLM results, PISA-D data suggests that the gender gap is more noticeable among students from wealthier households represented in Q3 and Q4.

Table 7: Learning performance by gender and socioeconomic status

Primary School (SEA-PLM)									
	Reading			Writing			Mathematics		
	Male	Female	Gap	Male	Female	Gap	Male	Female	Gap
Q1 (Poor)	279.2	285.7	-6.5***	271.7	283.5	-11.8***	280.7	283.8	-3.1***
Q2	282.4	290.0	-7.6***	275.3	288.5	-13.2***	283.7	287.9	-4.2***
Q3	286.8	295.2	-8.4***	279.0	292.6	-13.6***	287.9	292.0	-4.1***
Q4 (Rich)	299.4	306.2	-6.8***	289.9	301.5	-11.6***	299.7	303.7	-4.0***

Lower Secondary School (PISA-D)									
	Reading			Science			Mathematics		
	Male	Female	Gap	Male	Female	Gap	Male	Female	Gap
Q1 (Poor)	289.6	307.2	-17.6***	310.5	315.5	-5.0**	294.4	295.7	-1.3
Q2	304.6	317.6	-13.0***	324.0	325.3	-1.3	315.7	309.4	6.3*
Q3	305.3	330.5	-25.2***	324.4	335.6	-11.2***	318.9	328.1	-9.2*
Q4 (Rich)	330.0	354.1	-24.1***	340.5	348.7	-8.2***	350.6	360.3	-9.7**

Source: Prepared by the authors based on PISA-D and SEA-PLM

3.3.4. Gender disparities in learning by school type

Table 8 shows some noticeable differences in learning performance between boys and girls based on the type of school they attend. Students at both primary and secondary private schools clearly perform better than their peers at public schools. Results from SEA-PLM continue to demonstrate that girls perform better than boys in all subjects, regardless of whether they study at public or private schools. For example, compared to boys at the same level, girls at private primary schools score 8.5 points higher in reading, 11.0 points higher in writing, and 6.0 points higher in mathematics. Similar results are also found in public schools. Among students at lower secondary schools, there is a clear difference between public and private schools. The gender disparities in learning are larger in reading but smaller in science and mathematics. In private schools, girls' test scores in reading are 27.1 points higher on average than boys'.

Table 8: Learning performance by gender and school type

Primary School (SEA-PLM)									
	Reading			Writing			Mathematics		
	Male	Female	Gap	Male	Female	Gap	Male	Female	Gap
Public	285.3	292.0	-6.8***	277.2	289.5	-12.4***	286.4	289.5	-3.1***
Private	310.6	319.1	-8.5***	301.6	312.7	-11.0***	312.5	318.5	-6.0***

Lower Secondary School (PISA-D)									
	Reading			Science			Mathematics		
	Male	Female	Gap	Male	Female	Gap	Male	Female	Gap
Public	303.4	320.4	-17.0***	322.1	326.6	-4.5***	315.1	314.6	0.5
Private	357.0	384.1	-27.1***	359.4	367.7	-8.3*	379.5	391.8	-12.3*

Source: Prepared by the authors based on PISA-D and SEA-PLM

3.3.5. Gender disparities in learning by age

Since the PISA-D assessment only tested students aged 15 years, no age variation in the PISA-D data can be expected from other grade-based tests conducted in Cambodia. As a point of comparison, Table 9 presents the gender disparities in learning by age among Cambodian Grade 5 students. The typical age for Grade 5 students in Cambodia is 11 years old. Students who are ten years old and younger started their schooling earlier, while students aged 12 years old and older are likely to be late entrants or have repeated one or more grade levels. The mean score difference between boys and girls is statistically different in favour of girls in all age groups and subjects. The results also suggest that younger students doing better than their older peers in all subjects, although the gap between each age group is relatively small.

Table 9: Learning performance by gender and student age

Primary School (SEA-PLM)									
	Reading			**Writing**			**Mathematics**		
	Male	Female	Gap	Male	Female	Gap	Male	Female	Gap
10 years and less	290.2	295.6	-5.3***	281.9	292.4	-10.5***	290.6	292.4	-1.7*
11 years	287.5	295.4	-7.9***	279.3	293.1	-13.7***	287.9	292.7	-4.9***
12 years and more	283.9	289.8	-5.8***	276.4	287.1	-10.7***	286.3	288.9	-2.6***

Source: Prepared by the authors based on PISA-D and SEA-PLM

3.4. Gender gap reversal

According to the interviews with our key informants from the national-level actors, sub-national actors, NGOs, and school principals and teachers at the grassroots level, all stakeholders acknowledge that there has been noticeable gender progress regarding enrolment and learning performance. As discussed in Section 3.3., girls consistently outperform boys in all subjects in primary schools and, on average, do better than boys in secondary schools. The assessment of learning loss also reveals that school closures during the COVID-19 pandemic adversely impacted boys more than girls (Marshall 2022). Our KII data also confirms that all state and non-state actors at each level are aware of this new gender issue.

During the data analysis, four factors were identified as the causes of boys' underperformance. To our knowledge, no sound empirical evidence could explain why boys in Cambodia lag behind girls in their school performance. Nevertheless, from our participants' perspectives, Cambodian traditions, the different natures of boys and girls, and the double-edged impact of technology could be potential causes for boys' low performance.

First, Cambodian culture and traditions could provide one explanation for this phenomenon. Generally, girls are encouraged to stay home to help their family members, especially their mothers. Conversely, boys have fewer household obligations and more freedom to socialise freely with their peers (Prigent 2017). Boys also have more time and freedom to explore different activities besides learning, which can lead to undesired outcomes.

> Boys are more likely to use drugs as a result of the use of social media (videos or YouTube). Hence, the boys may be more easily influenced than the girls because the girls otherwise will be restricted by their families or relatives. (KII15)

Second, the majority of our participants believe that, in general, boys are more playful and less dedicated to their learning compared to girls. Cambodian society generally considers girls to be attentive and hardworking. According to our participants, girls' positive traits are

shaped by not only biological factors but are also the result of socialisation, specifically from family members. Informants think that boys are equally as smart as girls. However, due to their personal characteristics, boys tend to take education less seriously and pay less attention to their learning and more to social activities. These characteristics partly explain why girls are doing better in their learning performance.

> Teenage boys do not really pay much attention to studying. They do not really want to learn when they come to school. They usually come to school to play (e.g., sports). Girls tend to pay more attention to their studies. (KII10)

Third, the impact of technology on student learning can be double-edged, and when it is not used correctly, it can negatively affect student learning. COVID-19 has forced and accelerated the use of technology in learning and teaching worldwide. In Cambodia's response to COVID-19, MoEYS collaboratively worked with development partners to provide videos and e-lessons to students through broadcasting channels such as TV, radio, social media and e-learning platforms (MoEYS 2021a). Informants at the schools expressed concerns about students' addiction to smartphones. They felt that virtually all secondary school students, either in urban or rural areas, now have access to the internet through smartphones. Interviewed participants believed boys spend a significant amount of time on mobile games. Since the government is now pushing to include digital education as a part of the education transformation aimed at building a more resilient education system, some teachers are reluctant to restrict the use of smartphones in classrooms.

> The advancement in technology makes the boys lean into it and become careless about their studies. (KII15)

> Girls do not care much about those advanced technologies. They prefer spending their time helping the family or studying. (KII09)

However, some of our informants also expressed concern that using social media, like Facebook and TikTok, can also put girls at risk.

> Females are prone to be in danger of using technology because they are easily hoaxed by others. There are some women who run away from home after knowing people through Facebook. (KII15)

Fourth, this study found that socioeconomic status is another factor contributing to the gender difference in learning outcomes. Although it is not shared by all, several participants believe boys are more adversely affected by their household's living conditions. Viewed by society to be stronger and more independent than girls, boys are expected to shoulder the responsibility of supporting their families by generating extra income. Boys are more likely to carry out labour-intensive work and be away from school. Moreover, schools reported that more boys drop out and seek jobs in neighbouring countries.

Even though all actors acknowledge that boys now lag behind girls in their academic performance, most current gender-related policies and program interventions continue to target girls. Policymakers at the national level have not indicated any plan or intention to address this emerging gender gap reversal in learning attainment. As reflected in the latest Gender Mainstreaming Strategic Plan in the Education Sector for 2021-2025, girls continue to be the main target of interventions, while the difficulties that boys face are hardly mentioned as a new challenge to be addressed. However, it is essential to note that girls continue to face challenges in accessing all levels of education even as teachers and other stakeholders acknowledge the difficulties that boys face. The interview data suggested that the transition for girls from

secondary school to higher education could be challenging for those residing in rural areas because of their economic situation and their parents' value of education.

> Even if girls are performing better, gender equality has not yet been achieved nationally. Some people in rural areas still adhere to the traditional norm; hence, the ministry still places a strong emphasis on women. There is currently no intervention to address the underperformance of boys, but we focus on the activeness of teachers to ensure the engagement of boys and girls in studying. (KII1)

Program interventions implemented by both the government and development partners also continue to support girls. For instance, scholarship programs are found to impact enrolment positively, and scholarships continue to favour recipients who are poor and female. In fact, at the time of this study, the share of scholarships for girls at the sub-national and school levels is higher than that for boys. Importantly, several participants expressed their willingness to develop future initiatives in a more neutral way where both girls and boys can benefit from equal opportunities.

> Gender involves both boys and girls. I think we should have interventions or policies to support boys if we see that girls are now surpassing boys. (KII02)

3.5. Teaching practice through GRP lens

Throughout the interviews, we noted that our participants knew and used the term "gender" frequently. When discussing gender in the past, people often solely referred to girls and women. Today, our participant's perception of gender has changed to include not only girls and women but also boys and men. However, the term "GRP" is relatively new to our participants. For some, it was their first time hearing this term. Based on our observation, nearly all participants found it hard to differentiate "GRP" from "gender equality." As a result, when asked what GRP is, they tended to share what they had been doing to improve gender equality within their institution. Out of the 36 participants, only two could define GRP as teaching responsive to both girls' and boys' needs. A few participants also considered having a balanced number of girls and boys in the classroom to be GRP. Participants' lack of knowledge of GRP is unsurprising because there has only been one explicit intervention on GRP conducted by VVOB called the "Teaching for Improved Gender Equality and Responsiveness (TIGER)" (see Section 3.6.1. below). Although our study's participants were not familiar with the term "GRP," they reported that the integration of gender into teaching and learning first began as early as the 1990s. In fact, concepts surrounding gender have been gradually infused into various parts of teacher training and professional development, including teaching and learning materials, instruction on how to involve both female and male students in classroom activities, and the language used in classrooms and schools.

Following the FAWE's 2018 framework, we examine how GRP is used in practice by focusing on the six components: classroom management, classroom set-up, language use, teaching materials, lesson plans, and instances of violence.

3.5.1. Classroom management

Based on the interview data, participants understood that there should be a good balance of boys' and girls' participation in classroom activities. For instance, they cited that during group work, there should be an equal opportunity for both boys and girls to be leaders representing their group, and most participants agreed that there should be a good balance of boys and girls in group activities. Although the proportion of boys and girls in the classroom cannot

always be equal, exceptional situations can be made as long as potential gender imbalances are considered. One teacher said:

> In my class, out of 25 students, there are only 6-7 male students. Hence, in group activities, I try to make sure that there are male students in each group. (KII10)

Another noticeable point from our interview data is the selection of the class president or monitor. In the past, boys were more likely to be assigned to the class president role, but participants agreed that being a class president is the responsibility of both boys and girls today. Furthermore, more girls are now willing to take on the role of class president, and the perception of gender roles has changed significantly. For instance, there was a gendered division of labour between boys and girls in the past. Boys were typically in charge of classroom chores like throwing out the rubbish and watering the plants, while girls were in charge of cleaning the bathroom and the whiteboard. Now, both boys and girls are assigned the same duties regardless of gender. However, several participants did state that boys tend to be given tasks requiring physical strength more often than their girl classmates.

3.5.2. Classroom set-up

The research participants frequently highlighted classroom set-up as part of gender integration in the classroom by emphasising two crucial elements: seating arrangement and classroom decoration. There is no official guideline from MoEYS on how students' seats should be arranged in the classroom. Therefore, seating arrangements can vary from teacher to teacher, even within the same school. In a typical Cambodian classroom, the most common arrangement comprised four rows of two-person desks divided into two sides, one for girls and another for boys. If girls happen to outnumber boys in the classroom, they are placed at the front of the boys' section of the classroom. Our interview data suggests that seating arrangements are normally based on student needs, but how these needs are identified was not always clearly defined. One point of agreement across our participants was that students who are either hearing or visually impaired should be placed in the front rows. However, participants expressed contradictory ideas about whether girls and boys should be seated next to each other at the same desk.

Based on the action guide for gender-responsiveness developed in the TIGER project, girls and boys should sit together at the same desk. A participant who joined the GRP training offered by VVOB expressed:

> I normally have students of different gender sitting together by asking them to pick numbers and find their pair. (KII10)

Some teachers even reported that students become more confident with this seating arrangement.

> Before, girls were scared and less opinionated. After we mingle them with boys, they are more brave to express their ideas. Girls have become more confident nowadays, holding the microphone and speaking smoothly. (KII11)

On the other hand, some participants have contrasting opinions claiming that having girls and boys sit next to each other at the same desk is problematic. They claim that doing so raises concern among parents because, traditionally, it is inappropriate for girls and boys to be in close proximity to each other. Therefore, parents of girls tend to react negatively to the mixed seating practice and find it hard to accept this seating arrangement an opinion that was also shared by an older MoEYS official.

> It is impossible to put boys and girls together at the same desk as Cambodia has traditions and cultures to preserve. If they are placed together, girls might find it uncomfortable to express themselves. When they encounter any health issue (menstrual period), they do not know whom to talk with. (KII05)

Our participants repeatedly described classroom decoration as one of the gender-responsive classroom practices. For instance, posters and slogans displayed in the classroom should not have any explicit or implicit messages supporting gender discrimination. As an official at MoEYS put it:

> Before, we could display any posters we wished in classrooms, but now teachers are aware of gender stereotypes and begin to consciously use posters or pictures that represent both genders. (KII05)

Despite a gradual movement towards GRP in a classroom setup, gender discrimination is still sometimes implicit in classroom decorations, and more time and effort are needed to eliminate these practices completely. As one informant mentioned:

> I still can see that some gender slogans like "good children listen to the mother; good students listen to the teacher" place parenting duties on women and mothers. (KII14)

3.5.3. Language use

Some participants from MoEYS argued that gender-sensitive language has long been integrated into the teaching curriculum because teachers are instructed to use proper language in the classroom. However, national-level participants admitted that the actual practices could differ from MoEYS's guidelines. Interviews conducted with school-level participants suggested that teachers used inappropriate words that could negatively impact students in the past. A recent study conducted by VVOB thoroughly documents the kinds of emotional abuse present in some classrooms (Cabus et al. 2019). From this study, it appears that some teachers underestimate the impact such language has on students' well-being.

An official from MoEYS reported witnessing teachers blaming students for their mistakes using phrases like "How come you, as a boy, cannot do it," or "Because you are a girl, that is why you cannot go anyplace far like others." Nevertheless, our participants agreed that teachers now better understand how their language can adversely impact students' mental health and academic achievement, and the situation has improved. One teacher said:

> I would try to prevent using language that affects students' feelings, especially if students have problems at home. If we say something that hurts their feelings, particularly boys, they will stop coming to school. To do so, we need to understand their psychological states. (KII10)

However, some teachers are slow to change their habits, and more time and effort is needed to change their behaviour. As one participant observed:

> Some older teachers may still use the word "anh" (which is considered impolite by today's standards) to address themselves. In the past, it was considered acceptable but not now. (KII02)

3.5.4. Teaching and learning materials

In older textbooks and reading materials, males were often portrayed as successful characters, while female roles were centred around household chores. Since the contents of learning materials can shape students' future thinking, the roles of males and females should be

appropriately illustrated in learning materials. For example, if only girls were portrayed as dancers in textbooks, boys would not want to become dancers when they grow up because they think this career is not for men. On the contrary, girls would feel unmotivated to study if only men were featured as brilliant and successful people. On the positive side, according to our interview data, these gendered stereotypes are no longer an issue, and girls and women are now represented fairly in teaching and learning materials. Part of this change is due to policymakers being highly aware of these issues. As one participant noted:

> Pictures used in learning materials should not illustrate tasks that can be done by only boys or only girls but should portray that the task is suitable for everyone. (KII13)

Another participant shared a similar thought saying:

> I have noticed the changes made by the Ministry in textbook development. Pictures in textbooks now portray both boys and girls doing household chores to illustrate that both boys and girls can do them. (KII15)

Additionally, to ensure that teaching and learning materials are gender-responsive, all teaching and learning materials need to go through MoEYS's gender committee for approval prior to publication. Teachers are required by curriculum guides to explain the meanings and implications behind the pictures to avoid misinterpretation. Equal representation in textbook pictures also extends to persons with disabilities. Yet, things do not always go as expected, as one participant noted:

> Gender cannot be integrated into all contexts or scenes. For instance, in some particular activities (i.e. being a porter), it is strange to feature females. If we use female characters in such a scene, some may think we are torturing females. Therefore, we need to adjust scenes to reflect reality, norms, and traditions. (KII15)

An NGO participant also cited the presence of gender stereotypes centred around gender roles in textbooks that depict women and little girls cooking and preparing the plates, while men read the newspaper and drink tea. Thus, despite the progress made in teaching materials to be more responsive to gender, there is still room for improvement.

3.5.5. Lesson plans

Although there is no demonstrated way of creating a lesson plan specifically in a gender-responsive way, the majority of the teacher participants mentioned that they are required to incorporate gender into their lesson plans. Moreover, teaching methods must also facilitate the participation of boys and girls. This has been practised in the classroom as explained by one teacher:

> We cannot call only boys to answer questions in the classroom. Doing so will lead girls to pay less attention to studying. It is important to give equal chances to both girls and boys, making them concentrate in the classroom. (KII11)

Since this teacher is working in one of the TIGER project's target schools, their practices may differ from those in regular schools. Our research team attempted to confirm this teacher's practice by comparing sample lesson plans on MoEYS's website and lesson plans provided by the TIGER project. In the MoEYS lesson plans, gender is not explicitly mentioned, but it does state that attention should be paid to all students and teaching and learning processes should be centred around students. In the student activity section, there were no assigned activities specifically for boys and girls, but there was also no indication that student groupings should be gender sensitive. Regardless, MoEYS lesson plans attempt to ensure all students

are involved in the learning process, despite gender not being the sole focus of inclusiveness. Teachers interviewed for this study said they do consider gender when designing their lesson plans. However, their responses are specious since participants also said that some teachers often reuse old lesson plans, copy them from other teachers, or even use the lesson plans prepared when they were teacher trainees. Thus, more attention should be paid to how gender is incorporated into lesson plans.

3.5.6. Gender-based violence

Gender-based violence in Cambodian schools happens in three forms, including emotional abuse, physical violence, and sexual harassment. Physical punishment was frequently used in the past to discipline students. Such abuse can have a profound negative impact on students' futures and discourage them from attending school. One participant shared her experience:

> In the past, a teacher slapped a misbehaving student. The student hates the teacher until now. The teacher started to realise that what she did was wrong after learning about gender-based violence. She has since regretted doing such a thing. (KII07)

Currently, corporal punishment is prohibited at schools. Our interviews suggest it still exists, albeit to a much lower degree. As one teacher described:

> Before, we also used physical punishment, but we now stop doing it. Instead of using [positive] physical punishment, we tell them to clean bathrooms, water flowers, or stand in front of the classroom as punishment. (KII11)

According to a VVOB report, emotional violence in the form of verbal insults is the most prevalent form of abuse in Cambodian schools (Cabus et al. 2019). Our interview data supported this finding with one participant sharing their observations:

> Before, teachers gave students funny nicknames and used those nicknames to address them in front of the class. For instance, they would address a male student as "ah ka-taey," meaning gay in English, rather than calling his name. (KII07)

3.6. Interventions related to gender equality in education

This section describes three projects identified in this study to have had a significant impact on GRP and gender equity. The TIGER project is the only project in Cambodia closely related to GRP, while the other projects aim to promote gender equity with a strong focus on girls' education.

3.6.1. Teaching for Improved Gender Equality and Responsiveness (TIGER)

With financial support from the European Union and Belgium's Flanders (FWO), VVOB implemented the TIGER project between October 2017 and December 2020. The project aimed to improve teachers' knowledge and skills through PRESET and INSET and school directors' professional development surrounding gender-responsiveness in schools. Three pillars were developed in this project that are described as follows:

1. Developing an Action Guide to provide relevant ideas, tools, and information to assist schools' teaching practices and leadership in a gender-responsive manner.
2. Ensuring the knowledge and practice of the teacher trainees, in-service teachers, and school leaders through training, individual coaching, and peer discussions.

3. Introducing GRP to the participants throughout the project including gender-responsive lesson plans, language use, teaching materials, and classroom arrangement.

By 2020, the project transformed 40 primary and lower secondary schools and the teacher education college (TEC) in Battambang province into centres of excellence for gender responsiveness. Several studies were conducted by the VVOB research team to measure the TIGER project's impact on students and teachers. These studies have shown that teachers' knowledge and skills have improved as they became more aware of school-based violence and committed fewer acts of emotional and physical abuse to students (Cabus et al. 2021). For learners, the studies found a significant decrease in all three forms of abuse (emotional, physical, and sexual) in primary schools. Additionally, the action guides (Booklets 1 & 2) on gender-responsive education were developed to equip teachers and school leaders with basic knowledge of gender concepts and to increase awareness of gender challenges in education, thereby making them more gender-responsive. A baseline evaluation was conducted before the project began and found that schools were indifferent primarily to gender, meaning they lacked consideration of boys' and girls' specific needs. A second evaluation was conducted towards the end of the project that measured students' school-related experiences with emotional abuse, physical violence, and sexual harassment, and it showed an improvement in these schools and the beginnings of their transformation into gender-responsive learning environments.

3.6.2. Life Skills Learning for Adolescent Girls (LSLAG)

LSLAG is implemented by the Kampuchea Action to Promote Education (KAPE) between December 2018 and November 2020. With financial support from GAP Inc. (the international clothing and accessories retailer), KAPE worked closely with MoEYS to address insufficient information on life skill development among Cambodian youth, especially girls. Female students were the project's focus as Cambodia had a low girl participation rate in secondary schools at the time of its implementation. Girls' low participation in secondary school was attributed to the long distance between their homes and schools, the low opportunity cost of education, and the traditional mindset that education is irrelevant to economic survival.[1] However, since the program was integrated into the school curriculum, boys also participated despite its intended focus on girls.

The project had two main goals: i). to build life skills for girls to enhance their confidence and ability to make decisions and plan for their future, and ii). to ensure that they have a healthy and positive transition to adulthood in which their physical growth, mental health, and social behaviour have been tremendously transformed. To attain these objectives, KAPE adopted a life skill curriculum developed by GAP Inc. called Personal Advancement and Career Enhancement (PACE) curriculum. It was developed in other contexts and then adjusted to account for Cambodia's context. The PACE curriculum was implemented at 23 target secondary schools in Kampong Cham and Tbong Khmum provinces. As seen in Table 10, the PACE curriculum consisted of eight modules divided into two parts and incorporated basic gender skills for girls ages 11-17.

1 However, as stated previously in this study, studies now suggest that this is no longer that case as girls are currently enrolling at higher rates and performing better than boys at all levels of schooling.

Table 10: Content and structure of the PACE curriculum

	Module	Title	Description
Study for teenagers (11-13)	1	I and my surrounding environment	Personal Identity, Gender, and Communication Skills
	2	I and my body	Anatomy, Menstruation, Self-esteem, Physical Thinking, Consent
	3	I and my communication	Feelings, Communication, Friendship, Violence
	4	I and my goal	Goals, Prioritisation, Time Management, Leadership
Curriculum for adult girls (14-17)	5	Oneself	Personal identity and discovery, Creating a Gender Society, Power and Patriarchy, Good body, Feelings and relationships
	6	Efficiency	Effective communication, Power and communication, Violence and Conflict Management
	7	Ability to make decisions	Gender and Goals, Organizing Desires and Purposes, Skills You Want
	8	Employability	Preparing for employment, Employment Management, Entrepreneurship, and practical ability

Source: KAPE (2021)

Challenges existed throughout the project implementation. For instance, there were shortages in teaching staff, limited incentives, and inadequate time slots for teaching the curriculum. Capacity has been a major constraint as the assigned teachers, as well as the master trainers, had limited knowledge and capacity to implement the PACE curriculum. Despite these challenges, LSLAG was successfully implemented in four lower secondary and 19 upper secondary schools after two years. The project assisted 9,431 students (70.0% girls) and built the capacity of 79 local teachers and officials in the two provinces.

KAPE also conducted a pre-test and post-test to assess students' knowledge and skills of adolescence, mainly based on the content of the PACE curriculum. The tests indicated an average improvement of about 10%+ for both genders. Moreover, the project developed a Cambodia-specific version of the PACE curriculum and published it in hard copies. KAPE is currently negotiating with GAP Inc. to extend the project for another phase to replicate the project at additional sites while convincing MoEYS to adopt PACE as part of its life skills education curriculum.

3.6.3. Life Skills for Gender Equality

This project was started by Room to Read (RtR) in 2022 and is expected to conclude in 2024. RtR has contributed to the improvement of the quality of girls' learning in secondary schools through their implementation of the Girls' Education Program. After a decade of experience supporting girls' education, RtR has begun to shift its attention to boys as well, especially as an increasing number of boys leave school. RtR Cambodia is now piloting its Life Skills for Gender Equality Program in Banteay Meanchey, focusing primarily on boys. The project aims to support boys in developing skills for success in school and beyond and to challenge the harmful gender norms that limit both boys and girls from reaching their full potential. The activities inside this project are similar to RtR's award-winning Girls' Education Program, which includes life skills lessons, material support, mentoring, and parent and community engagement. However, in the Life Skills for Gender Equity Program focusing on boys, the pilot

phase only offers life skills lessons and parent and community engagement without providing material support. RtR's focus on the new gender issues impacting boys provides a promising approach to addressing a wider variety of gender issues that schools must be responsive to in the future.

4. Conclusion and implications

With the support of development partners, the government has aligned its strategies and commitments to ensure greater gender equality in education, particularly by focusing on girls' access to quality education. The government's gender mainstreaming strategies in education have emphasised promoting girls' education and increasing women's participation in management and decision-making roles in schools and public institutions. While progress has been remarkable in improving girls' enrolment and learning outcomes, there is still room for improvement in advancing women's roles in decision-making positions.

Our data shows a new version of gender gaps in schooling and learning in Cambodia. Today, girls' enrolment surpasses boys' enrolment, and girls are outperforming boys in primary and lower secondary schools. However, little action has yet been taken to address the emerging issue of boys' lower performance. Cultural expectations, differences in behaviour and commitment to learning, the impact of technology, and socioeconomic factors contribute to the emergence of new trends indicating boys are underperforming compared to girls at the same level. Existing policies and interventions have predominantly prioritised girls, but recent initiatives have started to address new gender disparities that impact boys. Although the concept of GRP is not widely known among teachers and stakeholders, except those involved in the TIGER project, teachers appear to apply a significant portion of GRP practices in their teaching.

One area where more efforts are needed to enhance gender equity is for women to be more involved in decision-making at all levels. Women continue to face challenges in breaking the glass ceiling for management positions despite increased levels of representation for females in management roles. Women's influence in decision-making remains limited, with most females occupying deputy instead of director or more senior positions.

To further promote gender equity and enhance the implementation of GRP, several interventions have been implemented in Cambodia. Projects like TIGER, Life Skills Learning for Adolescent Girls (LSLAG), and Life Skills for Gender Equality have focused on improving teachers' knowledge and skills, empowering girls with life skills, and challenging harmful gender norms. These interventions aimed to create inclusive and gender-responsive learning environments in schools, and their results were clearly positive.

Cambodia has demonstrated its commitment to enhancing learning quality and equity through teacher professional development. MoEYS has taken significant steps to standardise and improve teacher professional development by formulating the Teacher Policy Action Plan. The Framework for Teacher Continuous Professional Development has also been established to guide educators towards diverse opportunities to continue learning as professionals and encourage them to enhance their qualifications regularly through designated career pathways. Nevertheless, this study found limited explicit information regarding Cambodia's comprehensive and systematic teacher training programs. As such, there is a need for further emphasis on GRP and targeted training to address challenges faced by teachers in implementing student-centred approaches effectively.

Based on the study's findings regarding gender disparities, GRP, and teacher professional development, the following policy implications are proposed to bring Cambodia closer to its goal of providing inclusive and quality education for all children.

- ***Addressing the emerging gender gap reversal***: After significant efforts have been made to prioritise girls' education in Cambodia, this study reveals a new gender issue regarding boys' underperformance that needs attention. Policies and interventions should be designed to address the specific challenges boys face, including their engagement with technology, social activities, and socioeconomic factors hindering their learning. Educational policies must ensure equitable opportunities and support for both boys and girls. Therefore, it is critical that future gender policies accurately reflect the reality that boys require increased support in ways that differ from the support girls need.
- ***Strengthening teacher professional development***: Teacher training and professional development programs play a significant role in promoting GRP in Cambodia. While there are interventions related to capacity development for teachers on gender, there is a lack of interventions focusing specifically on GRP. The current training programs are often donor-driven and ad hoc and do not provide systematic in-service training. Therefore, it is necessary for the government to invest in comprehensive GRP training for teachers. This training should emphasise gender-sensitive teaching practices, effective classroom management, and ways to create inclusive learning environments. Additionally, ongoing support and monitoring should be prioritised to ensure that teachers successfully implement these practices in their classrooms so that students receive their benefits.
- ***Integration of GRP***: Although the TIGER project successfully developed and introduced an Action Guide for GRP, further integration is needed. The Teaching Education College (TEC) in Battambang continues to use the guidebook in their teaching training, and target teachers have begun practising GRP in their classrooms. However, GRP is yet to be included in the national agenda or the pre-service training program. Teachers' classroom management practices and language use continue to vary widely between schools and among individual teachers due to a lack of national guidelines on GRP. Thus, including GRP in the national agenda and pre-service training programs is essential to encourage teachers to integrate GRP concepts into their daily teaching practices. Establishing national guidelines on GRP would provide a clear framework for consistent implementation across schools and teachers.

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Appendix 1: List of KIIs

Code	Interview date	Participants (number of interviewees)	Interview medium
KII01	09 Sep 2022	Technical Department, MoEYS (2)	In-person
KII02	13 Sep 2022	Technical Department, MoEYS (4)	In-person
KII03	12 Sep 2022	Technical Department, MoEYS (2)	In-person
KII04	05 Sep 2022	Technical Department, MoEYS (3)	In-person
KII05	14 Sep 2022	Technical Department, MoEYS (2)	In-person
KII06	29 Aug 2022	Provincial Office of Education (3)	In-person
KII07	30 Aug 2022	Teacher Training Centre (2)	In-person
KII08	30 Aug 2022	District Office of Education (1)	In-person
KII09	31 Aug 2022	District Office of Education (2)	In-person
KII10	31 Aug 2022	School principal and teachers (2)	In-person
KII11	01 Sep 2022	School principal and teachers (4)	In-person
KII12	22 Aug 2022	NGO/Development Partner (1)	In-person
KII13	23 Aug 2022	NGO/Development Partner (1)	Online
KII14	23 Aug 2022	NGO/Development Partner (2)	Online
KII15	27 Aug 2022	NGO/Development Partner (2)	Online
KII16	16 Sep 2022	NGO/Development Partner (1)	Online
KII17	30 Sep 2022	NGO/Development Partner (1)	Online

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